



Alban Giacomo SpA

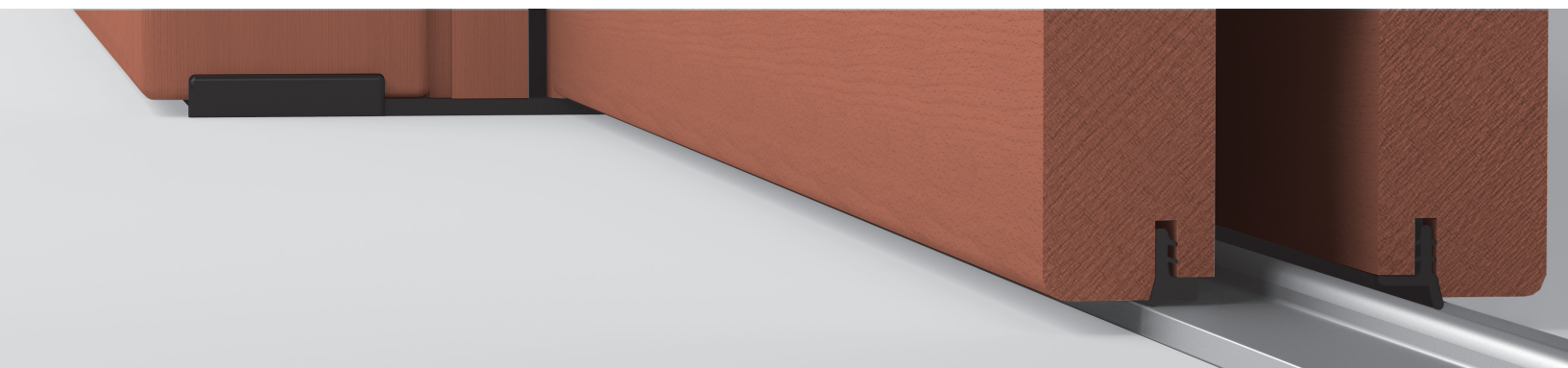
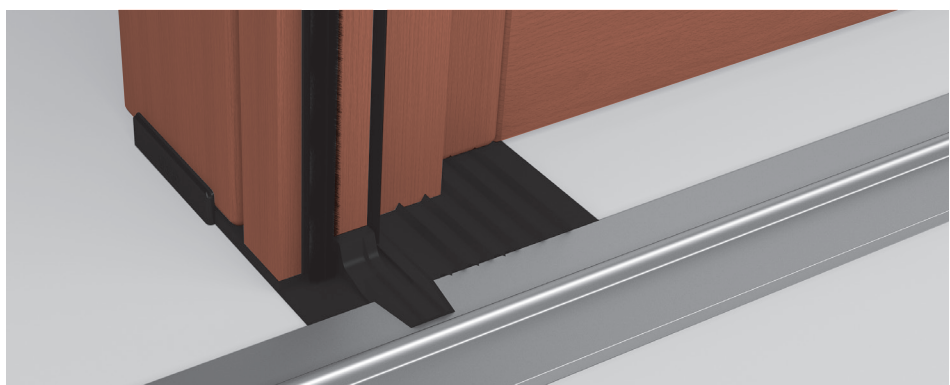
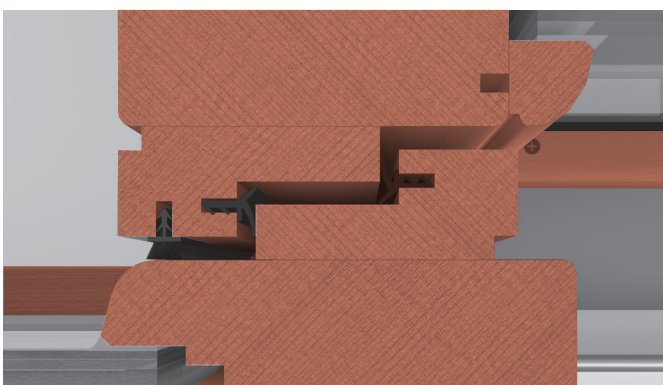
AZIENDA CON SISTEMA DI GESTIONE
PER LA QUALITÀ CERTIFICATO DA DNV
= **UNI EN ISO 9001:2008** =

TECHNICAL MANUAL

LIFT&SLIDE

Basic

- System sections 68x90 mm, 68x100 mm and 68x110 mm.
- Sash with only one bottom rail with the possibility for a baseboard.
- Vertical - bottom outside gasket: balloon gasket with vulcanized EPDM corner.
- Inside face EPDM gasket to cover the milled section.
- PVC top gasket with fin.
- Elaprene vertical gasket of the central point with fin.
- Water, air, wind, and soft body impact tests conducted with glass: 44.1/15/33.1 (minimum usable).
- Aluminium universal reduced top guide and low or high bottom track
- 28 mm distances between the leaves.
- Central point with wooden listels.
- Layout E constructed with symmetric central point with aluminium pin holder and end caps for closing the openings.
- Exterior brush weatherstripping.



Initial Type Testing (ITT) results for Basic

	LAYOUT A		LAYOUT E	
	Window and door dimensions		Window and door dimensions	
Water	3985x2750 mm	4A	3985x2750 mm	4A
Air	3985x2750 mm	4	3985x2750 mm	4
Wind	3985x2750 mm	2C	3985x2750 mm	2C
Noise abatement with glass 43 db - 55.4/15/44.1	3985x2750 mm	41db	3985x2750 mm	40db
Noise abatement with glass 41 db - 44.1/15/33.1	3985x2750 mm	39db	3985x2750 mm	39db
NB. Door or window thickness 68x110 mm				
Heat transmittance	3000x2350 mm	1,58 W/m²K	4000x2350 mm	
NB. Ug 1.4, improved glass spacer, Section 68x110 mm				
Soft heavy body impact	1600x1500 mm	5	4000x2750 mm	3



Using a 45 mm thick frame instead of a 56 mm frame will change the heat transmittance and mechanical resistance characteristics of the door or window. Therefore, this configuration is also covered by AGB cascading. In this manual, both configurations are considered.



Window and door manufacturers benefitting from the AGB cascading contract are required to install glass with the following minimum requirements:

Minimum thickness 44.1/15/33.1 Shatterproof

Ug 1.4 W/m²K or better (e.g. Ug 1.1 W/m²K)

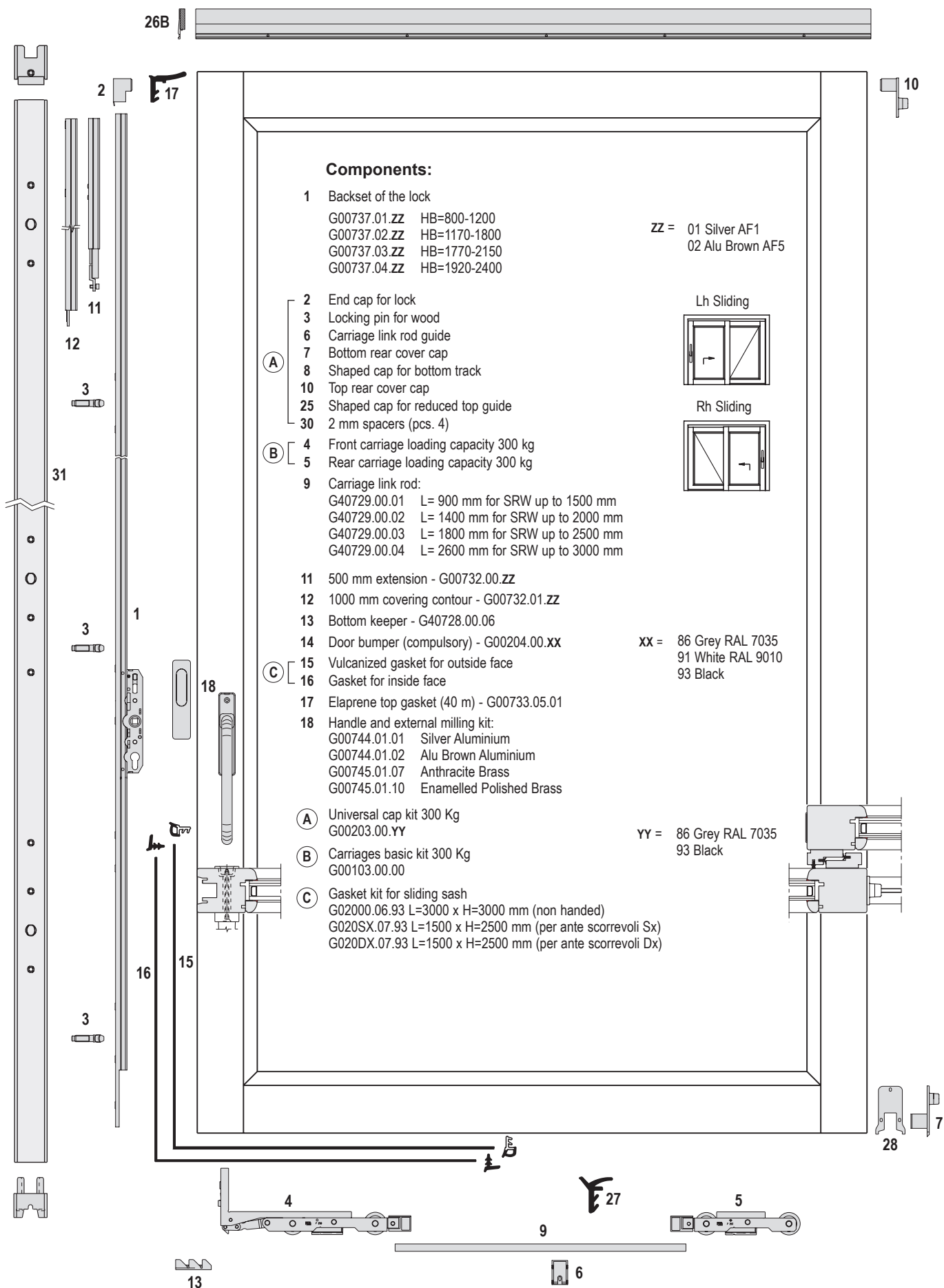
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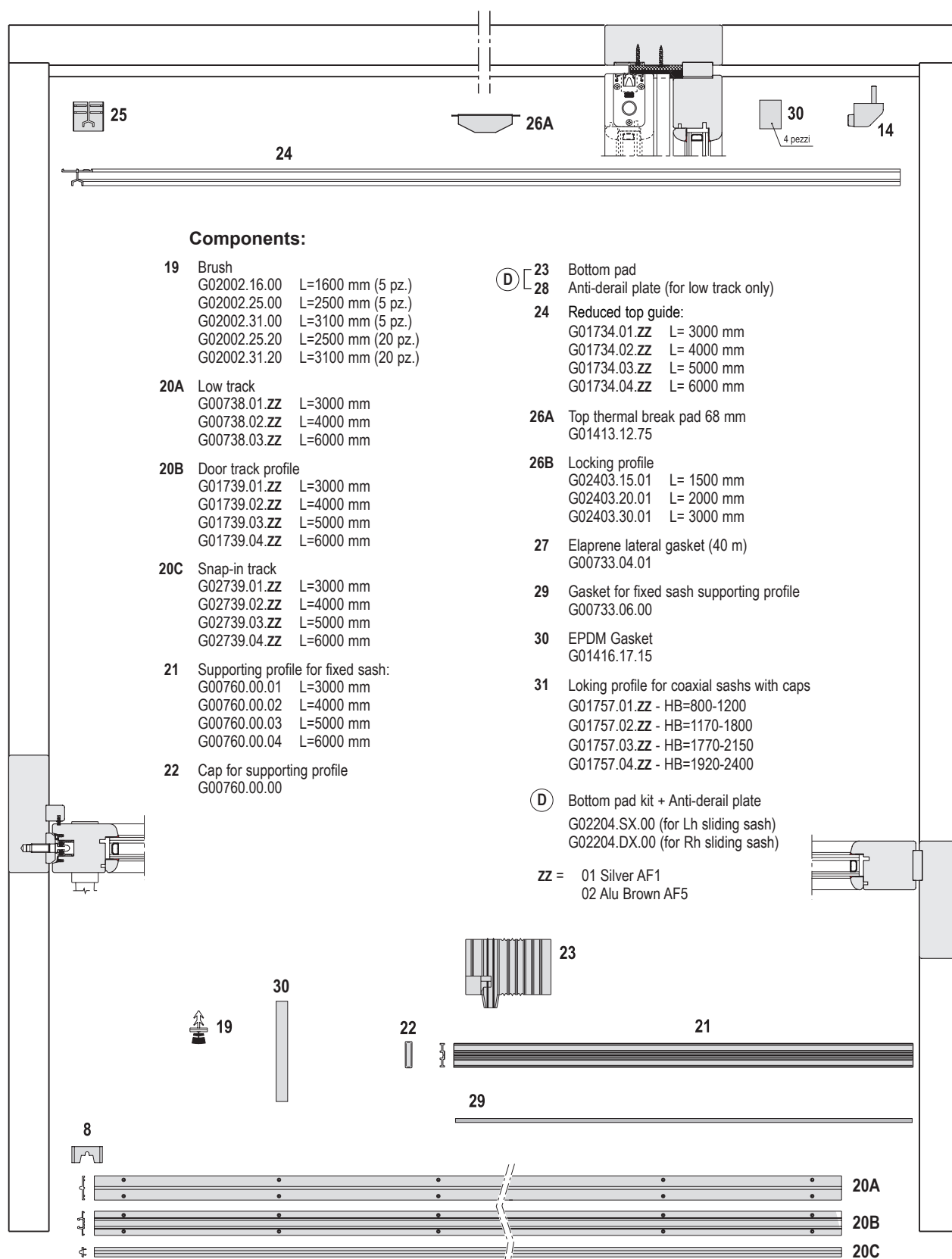
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Hardware diagram - Sash



Hardware diagram - Frame



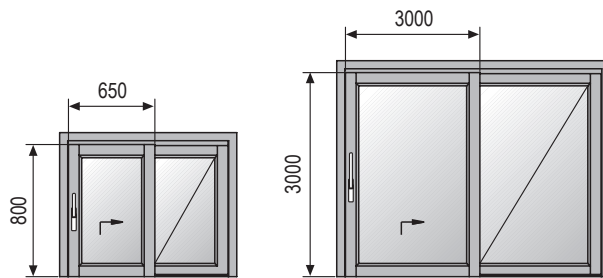
The following screws are required for assembly:

With STST = 56				With STST = 45			
3x40mm	3,5x30mm	4x40mm	4,5x35mm	3x40mm	3,5x30mm	4x40mm	4,5x35mm
4,5x60mm	4,5x70mm	5x70mm		4,5x50 mm	4,5x60mm	5x60 mm	5x70mm

With 68x90 profile	6x100 mm e 6x120 mm (fully threaded screws or turbo screws)
With 68x100 profile	6x120 mm (fully threaded screws or turbo screws)
With 68x110 profile	6x140 mm (fully threaded screws or turbo screws)



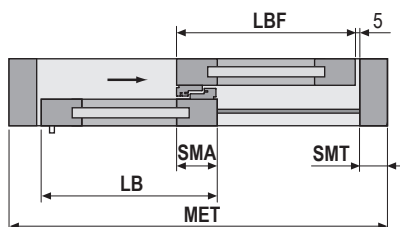
Dimensional limits



Width of sliding sashes calculation

Layout A

1 fixed door and 1 sliding door



$$LB = [MET - 2 \times (SMT + 5)] : 2 + SMA : 2$$

E.g.: $[4000 - 2 \times (56 + 5)] : 2 + 90 : 2$ $LB = 1984 \text{ mm}$

Layout D

1 fixed door and 2 sliding doors



$$LB = [MET - 2 \times (SMT + 5)] : 4 + SMA : 2$$

Layout E

2 fixed doors and 2 sliding doors

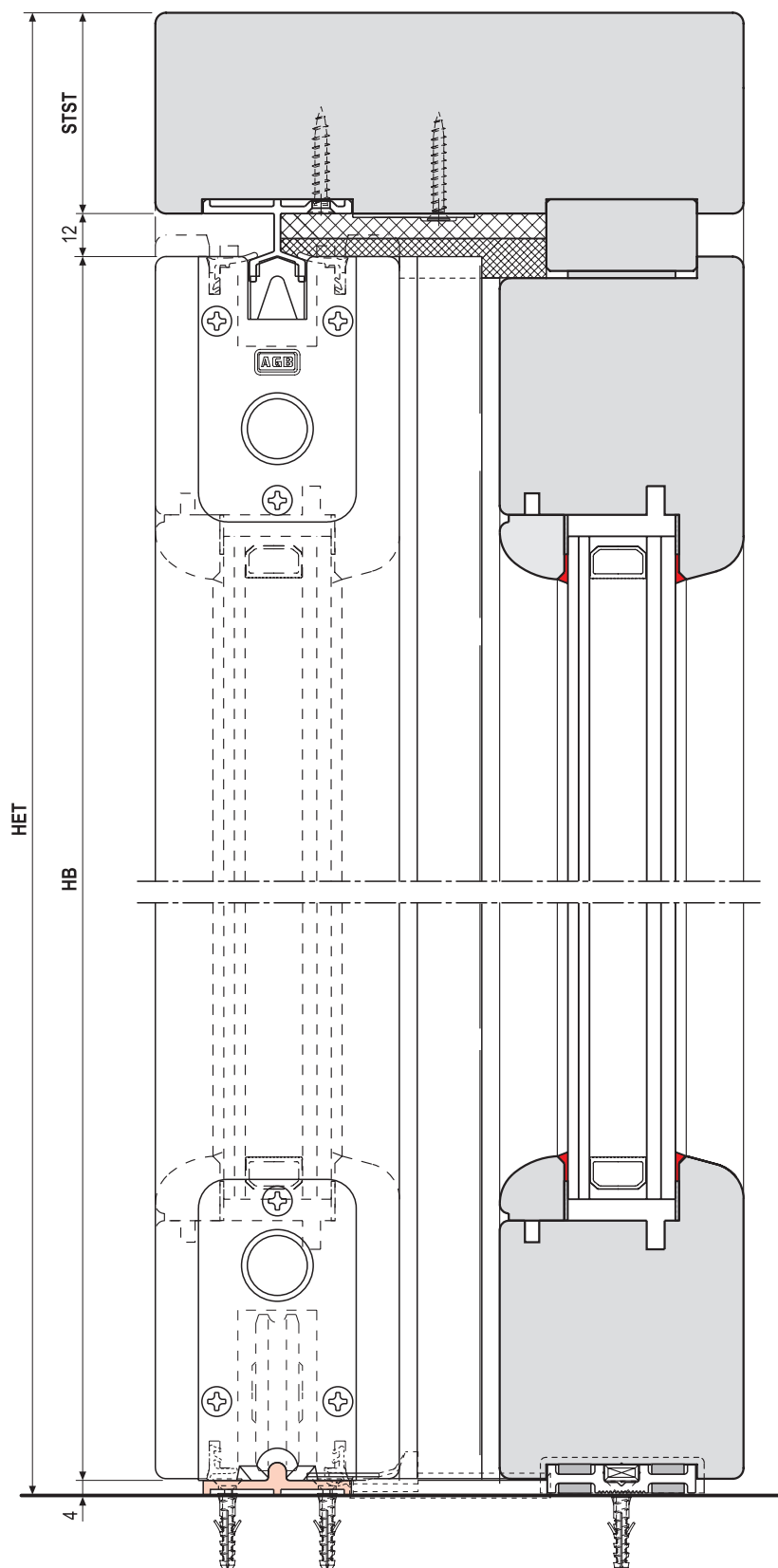


$$LB = [MET - (2 \times SMT + 3 \times 5)] : 4 + SMA : 2$$

Key legend of symbols and abbreviations

- LB** = Door width
- MET** = Outside frame measurement
- SMT** = Door frame jamb thickness
- SMA** = Sash jamb thickness
- LBF** = Width of fixed door
- Aria** = 5 mm
-  = Silicone or suitable gasket
-  = Neutral silicone bead with Primer

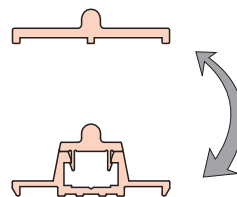
Height of sliding sash calculation (with high and low track)



HET = Outside frame height
HB = Sliding door height
STST = Thickness of top frame rail

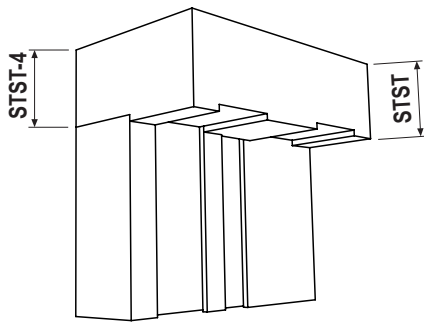
Tolerance HB $\pm 0,5$
STST = 45/56 mm

$$HB = HET - (STST + 12 + 4)$$

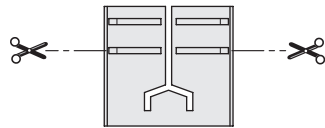


Calculation of stiles and listels measurements

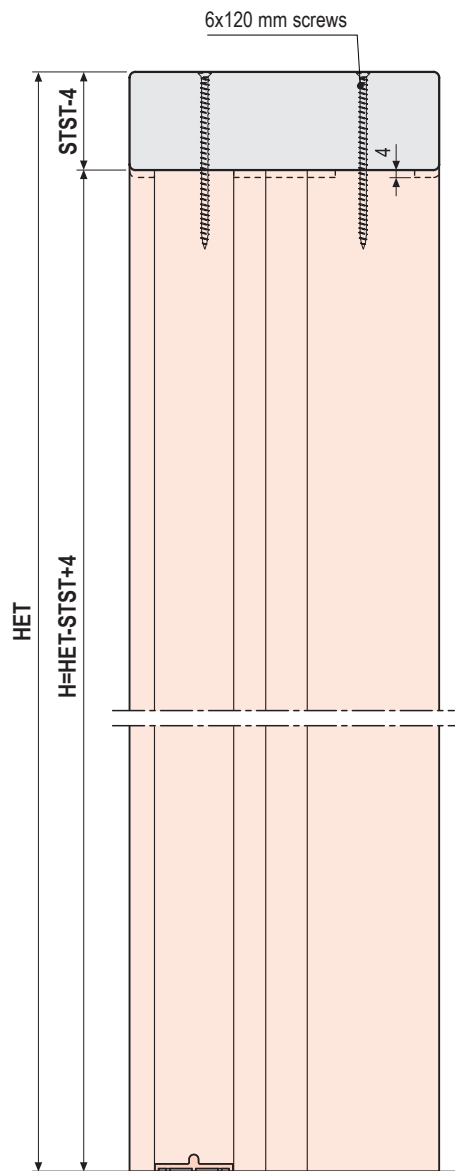
STST = 45/56 mm



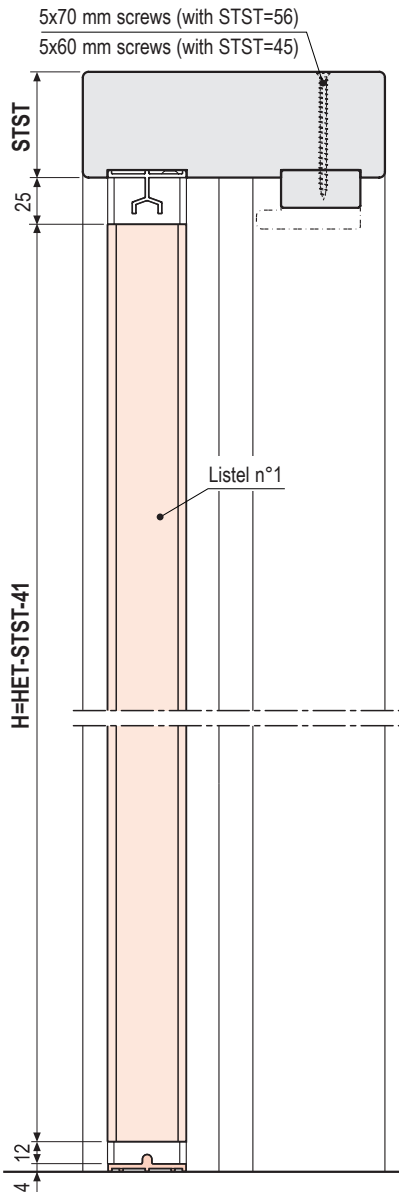
TOP CAP CUT DETAIL



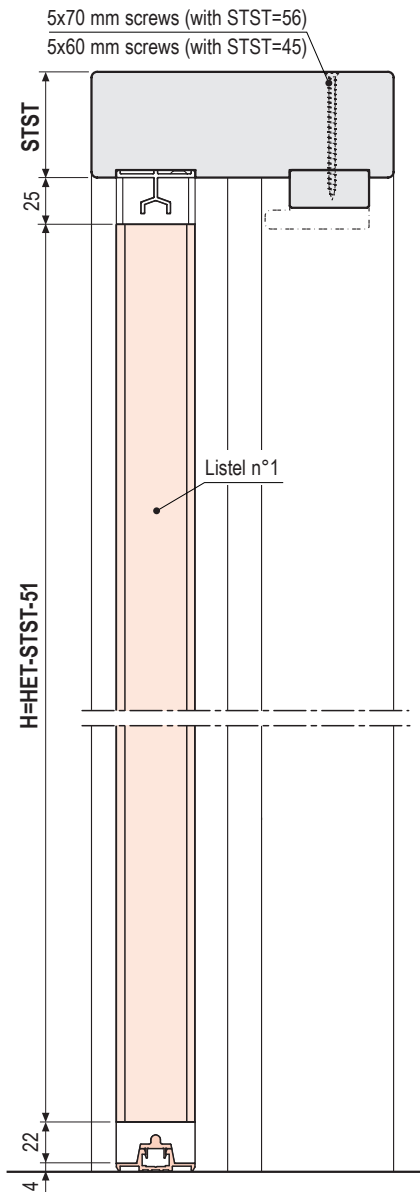
STILES HEIGHT CALCULATION



LISTEL N° 1 HEIGHT CALCULATION WITH LOW TRACK



LISTEL N° 1 HEIGHT CALCULATION WITH HIGH TRACK



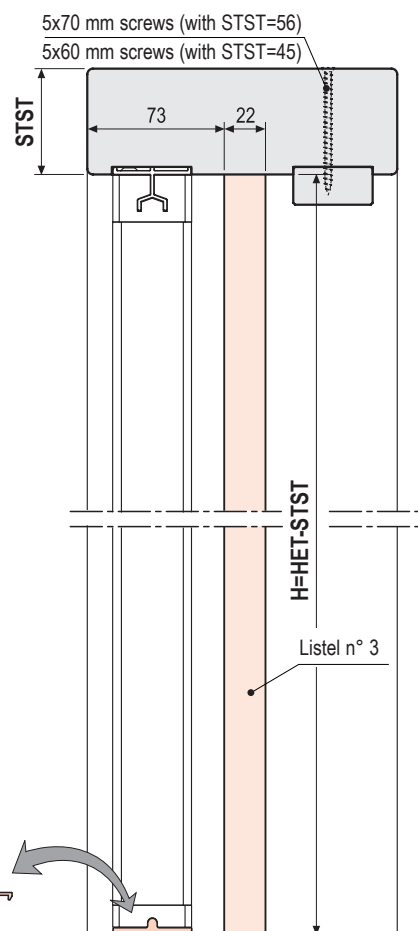
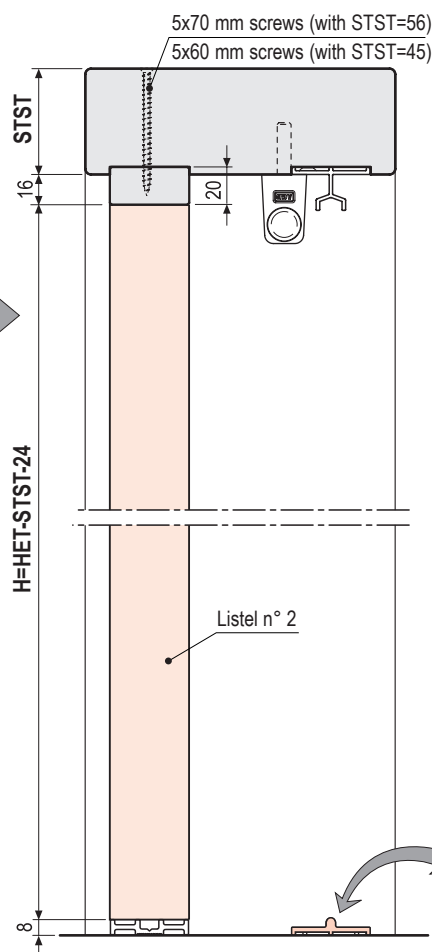
BOTTOM CAP CUT DETAIL
(only with low track)



LISTEL N° 2 HEIGHT CALCULATION

LISTEL N° 3 HEIGHT CALCULATION

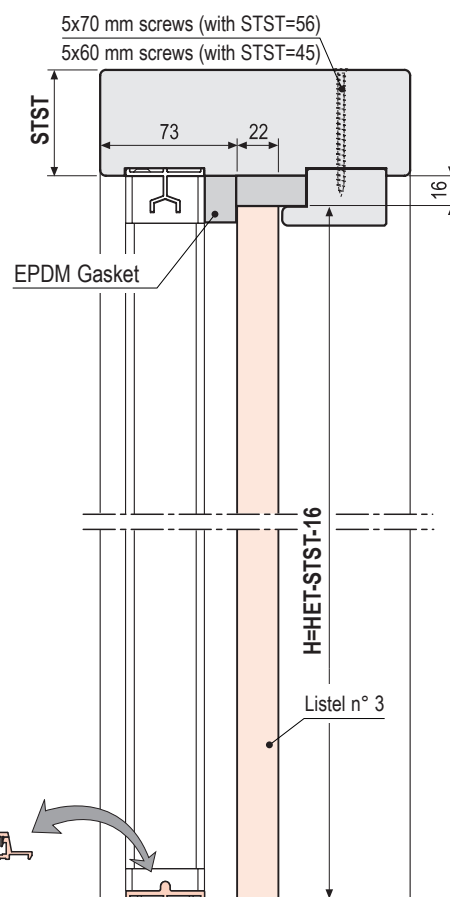
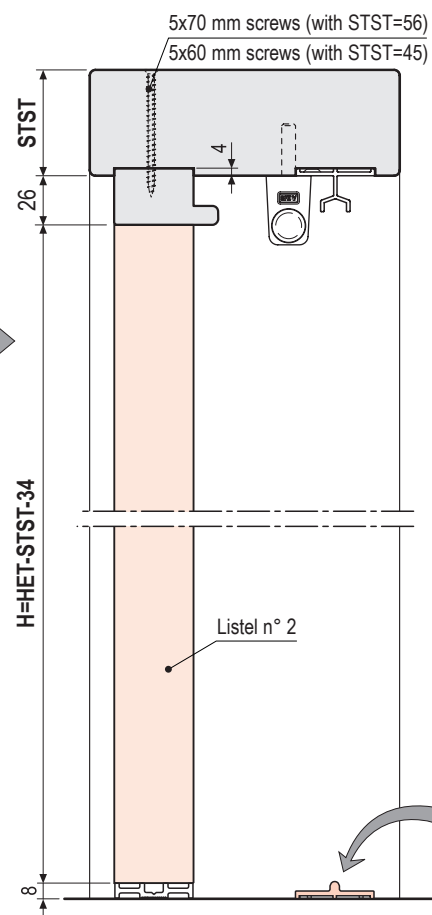
HEIGHT CALCULATION OF LISTEL WITH TOP THERMAL BREAK PAD



LISTEL N° 2 HEIGHT CALCULATION

LISTEL N° 3 HEIGHT CALCULATION

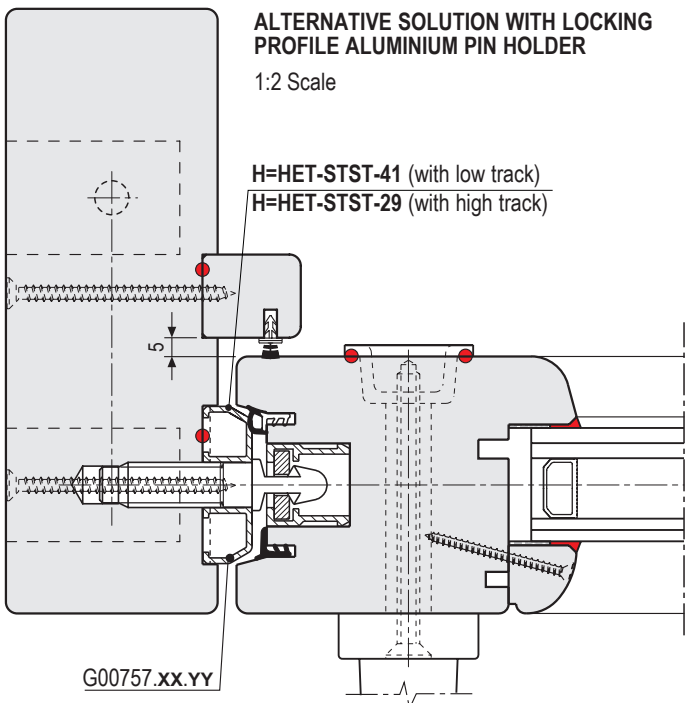
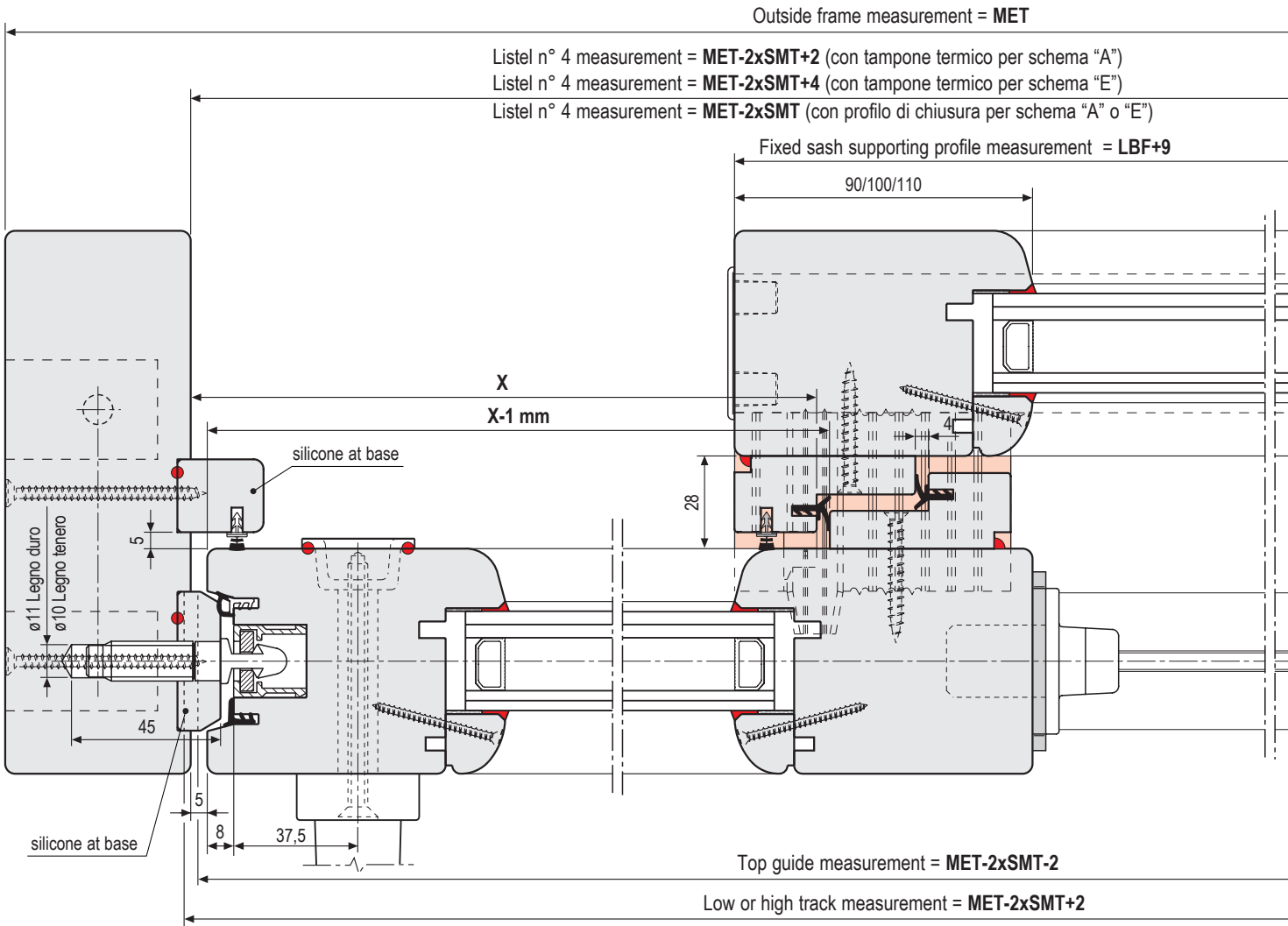
LISTEL HEIGHTS CALCULATION WITH LOCKING PROFILE



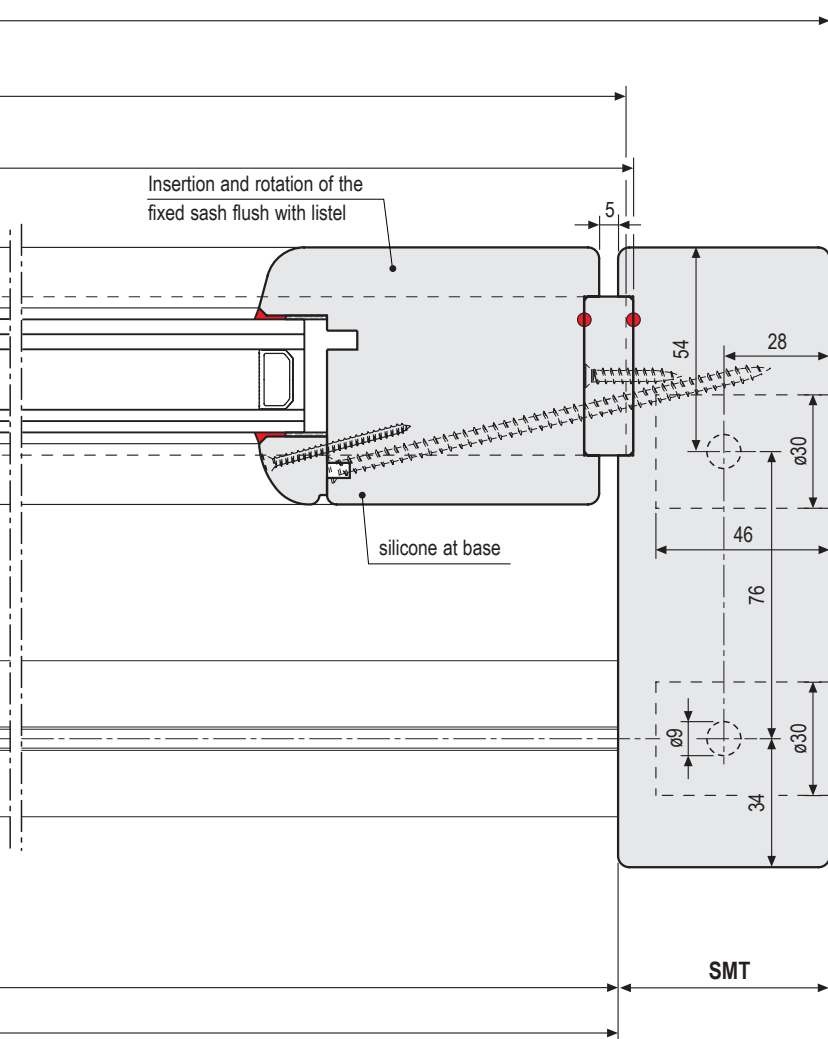
Horizontal section

1:2 Scale

STST = 45/56 mm

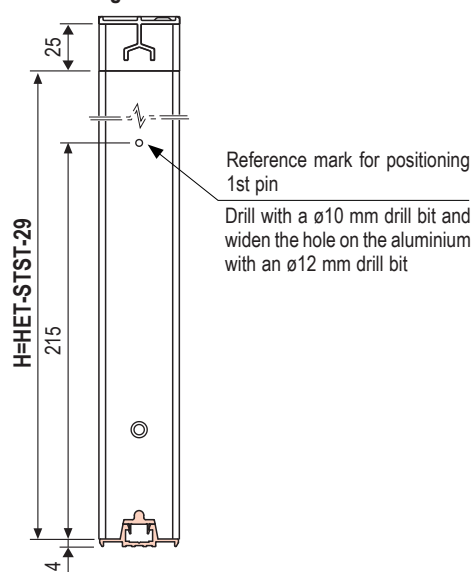


- xx = 00 (HB 800 - 1800)
01 (HB 1770 - 2900)
- yy = 01 Silver AF1
02 Alu Brown AF5

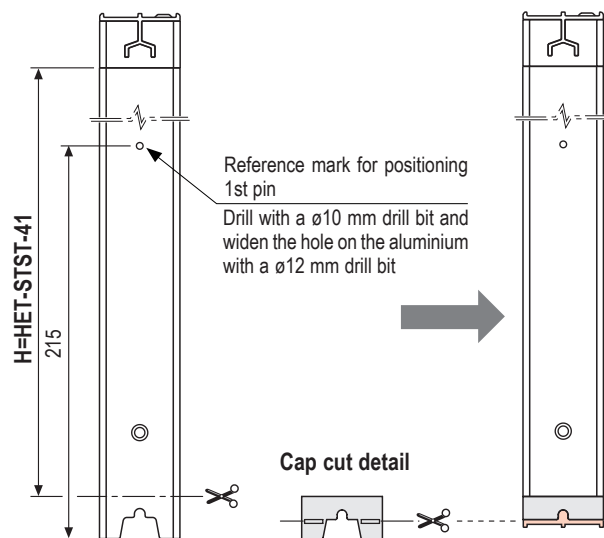


BOTTOM PART PROFILE CUT

Solution with high track

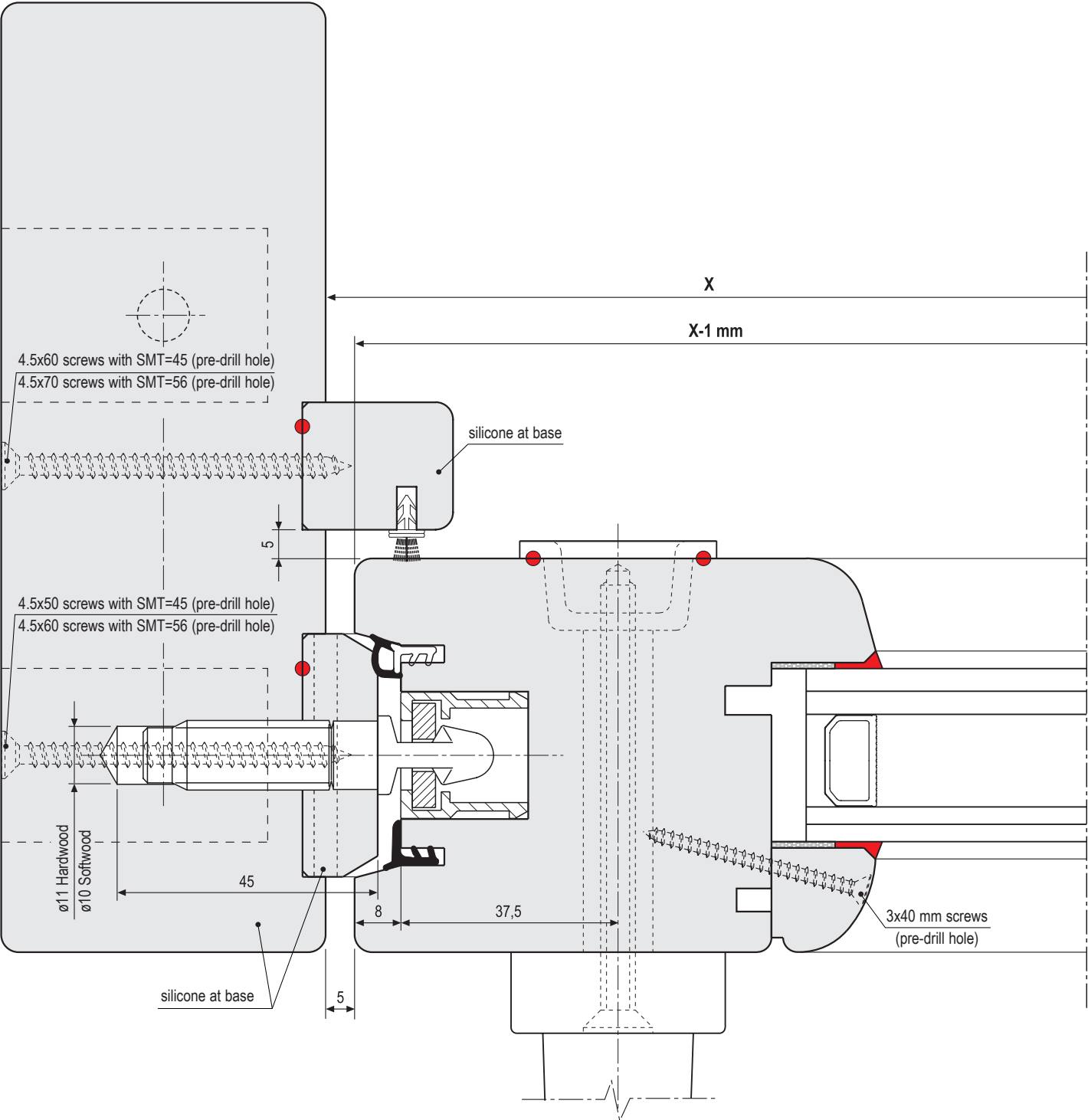


Solution with low track



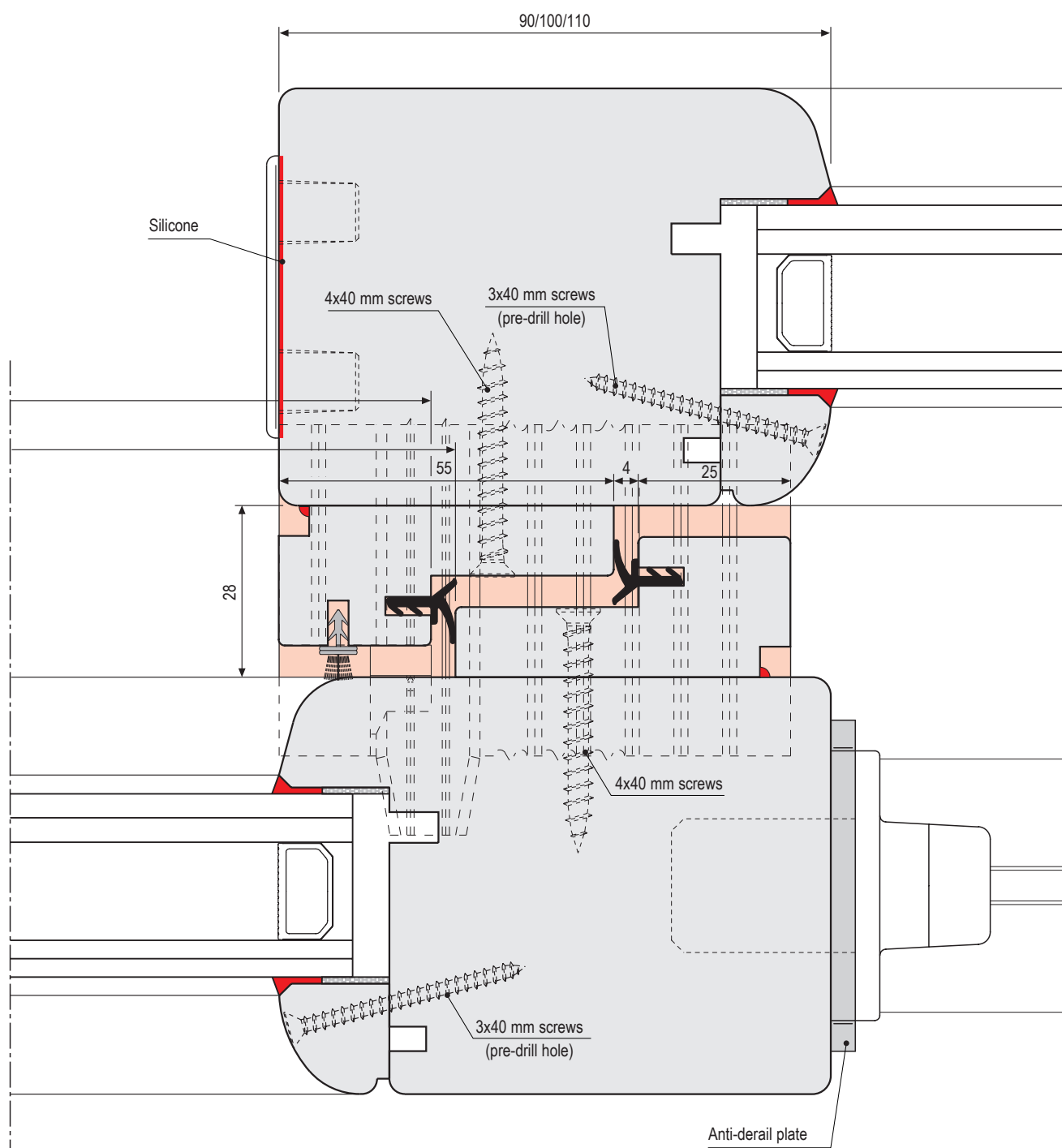
Horizontal section – sliding sash side point

1:1 Scale



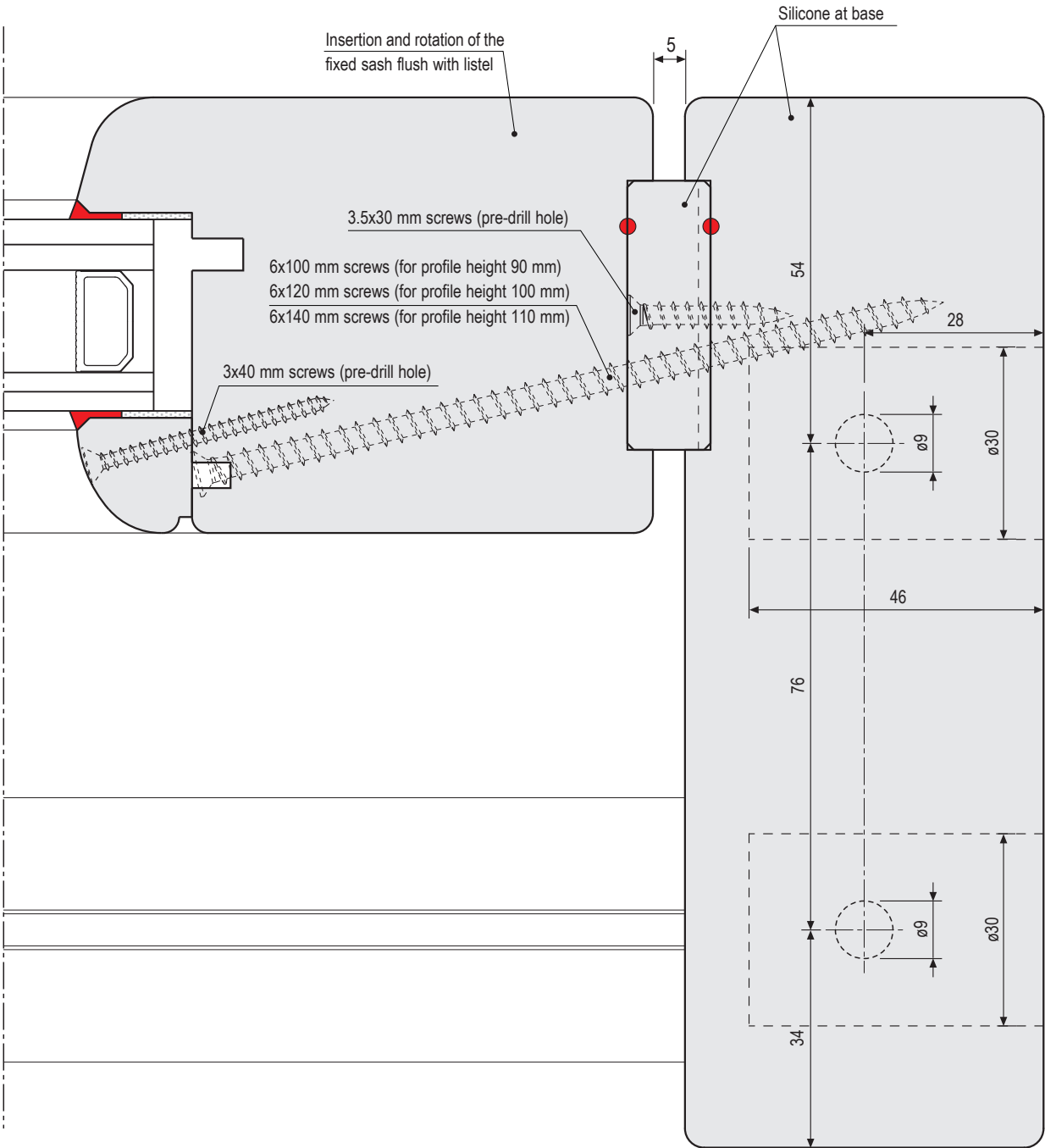
Sezione orizzontale nodo centrale

1:1 Scale



Horizontal section – fixed sash side point

1:1 Scale



Sash/frame processing and assembly

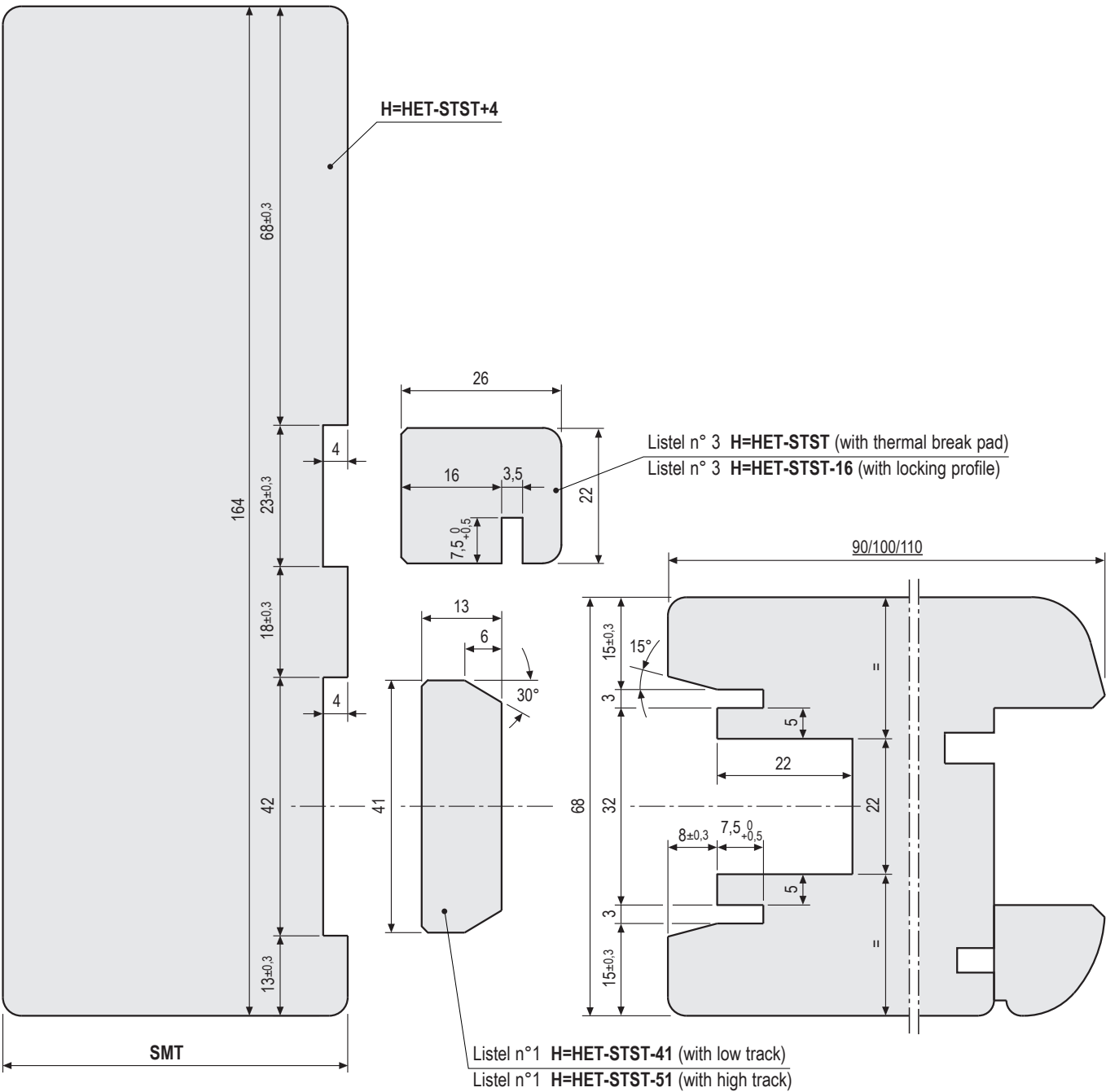
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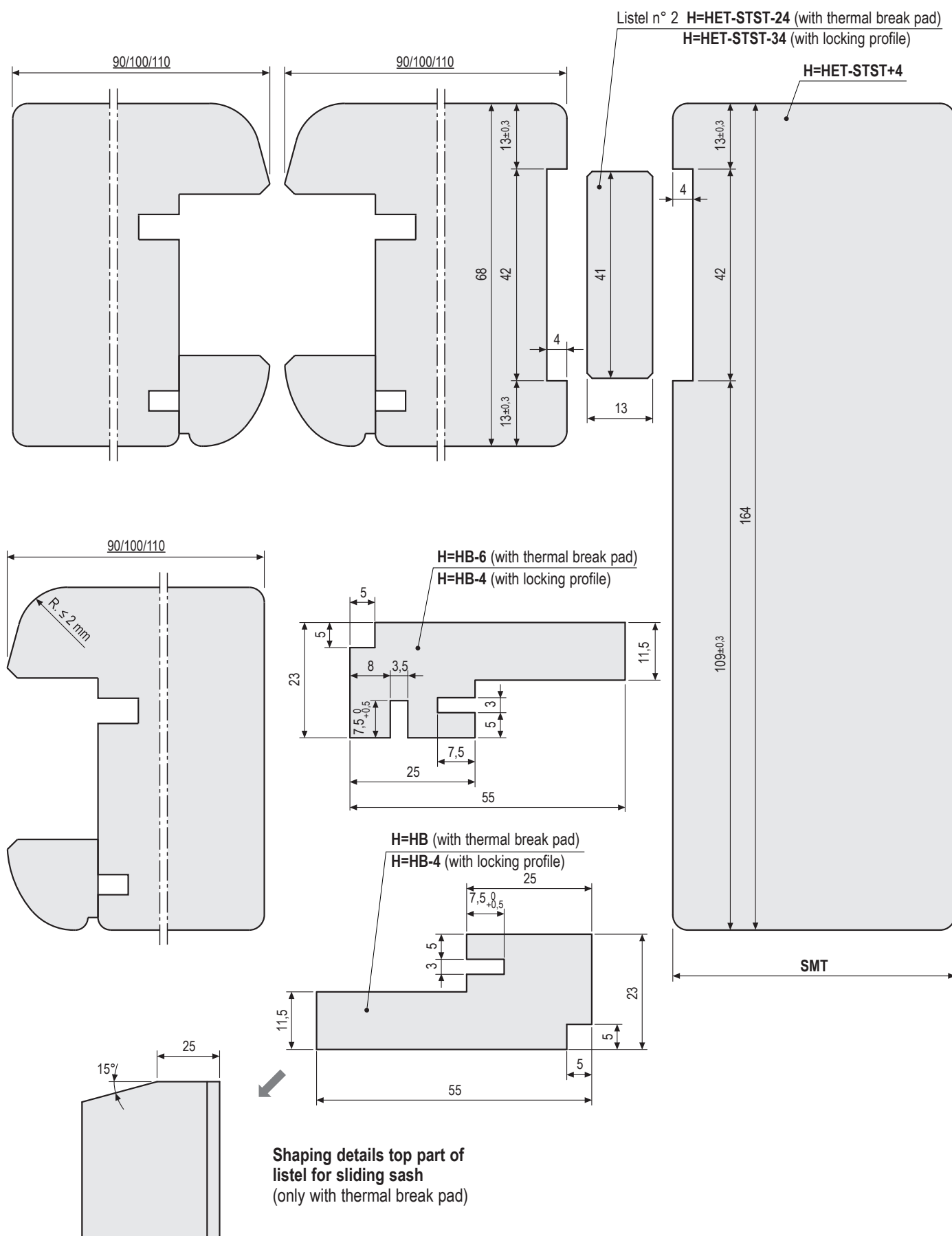
Wood detailing: horizontal sections

1:1 Scale

STST = 45/56 mm

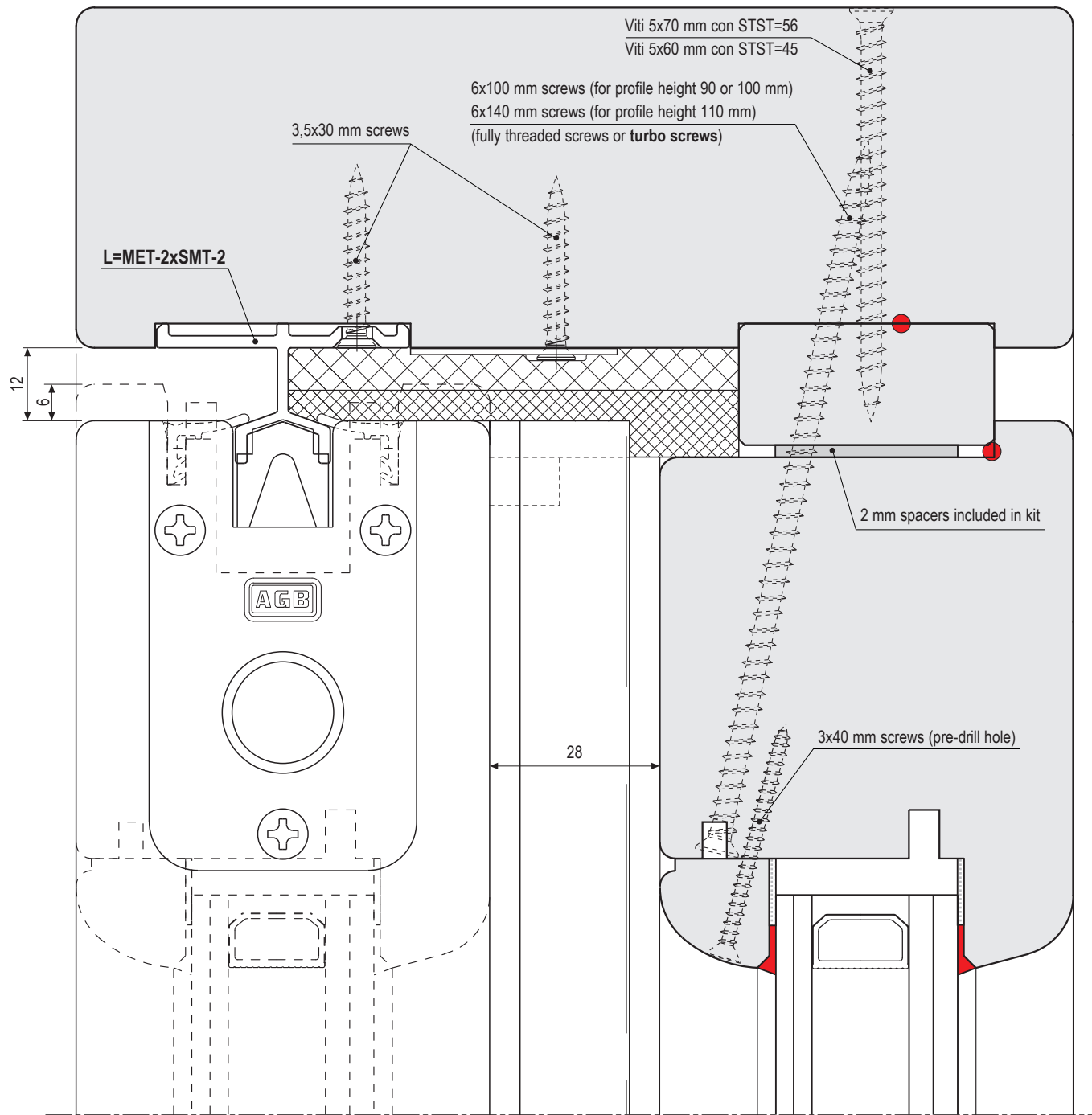
SMT = 45/56 mm





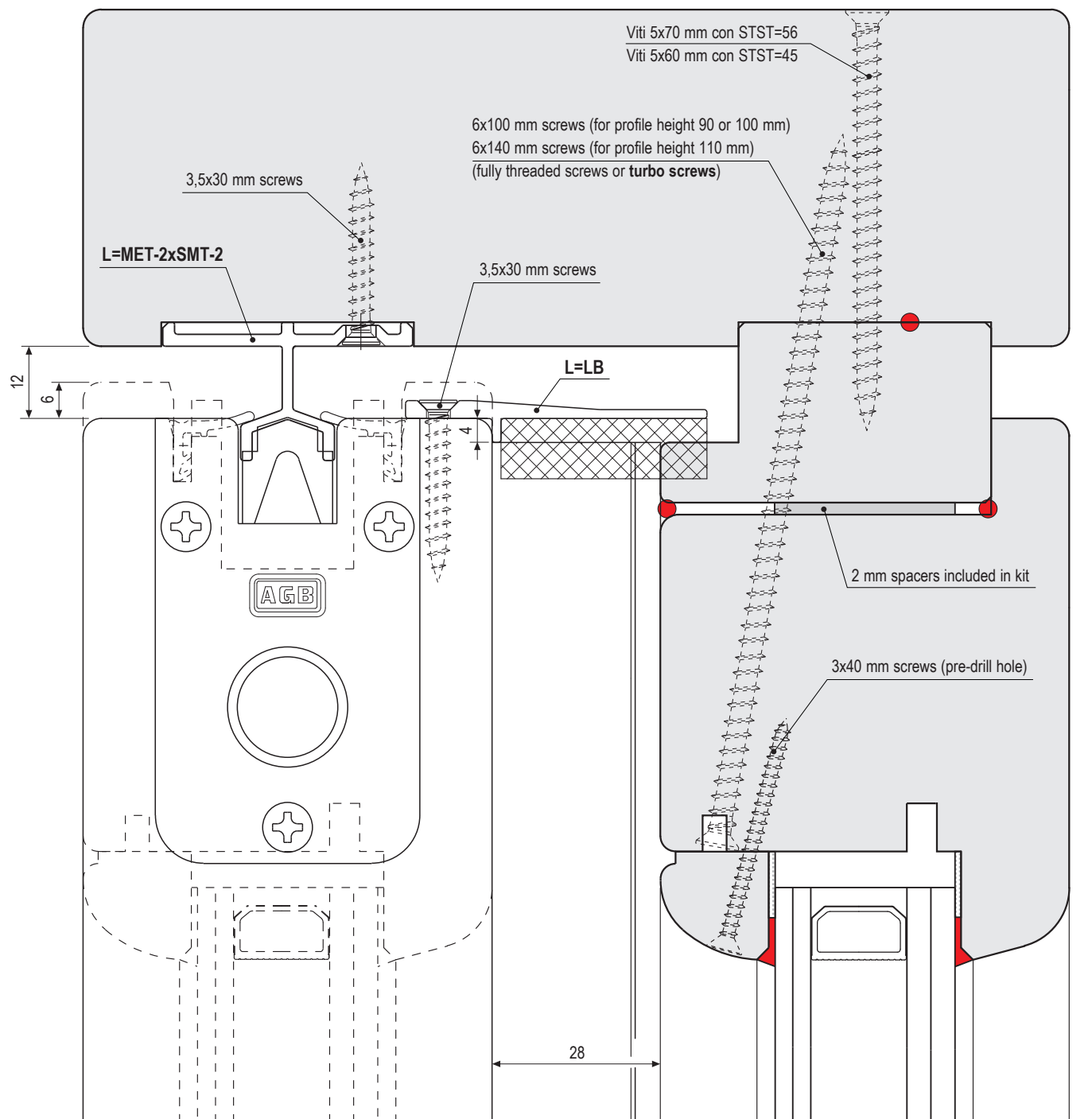
Vertical section top point with thermal pad

1:1 Scale



Vertical section top point with locking profile

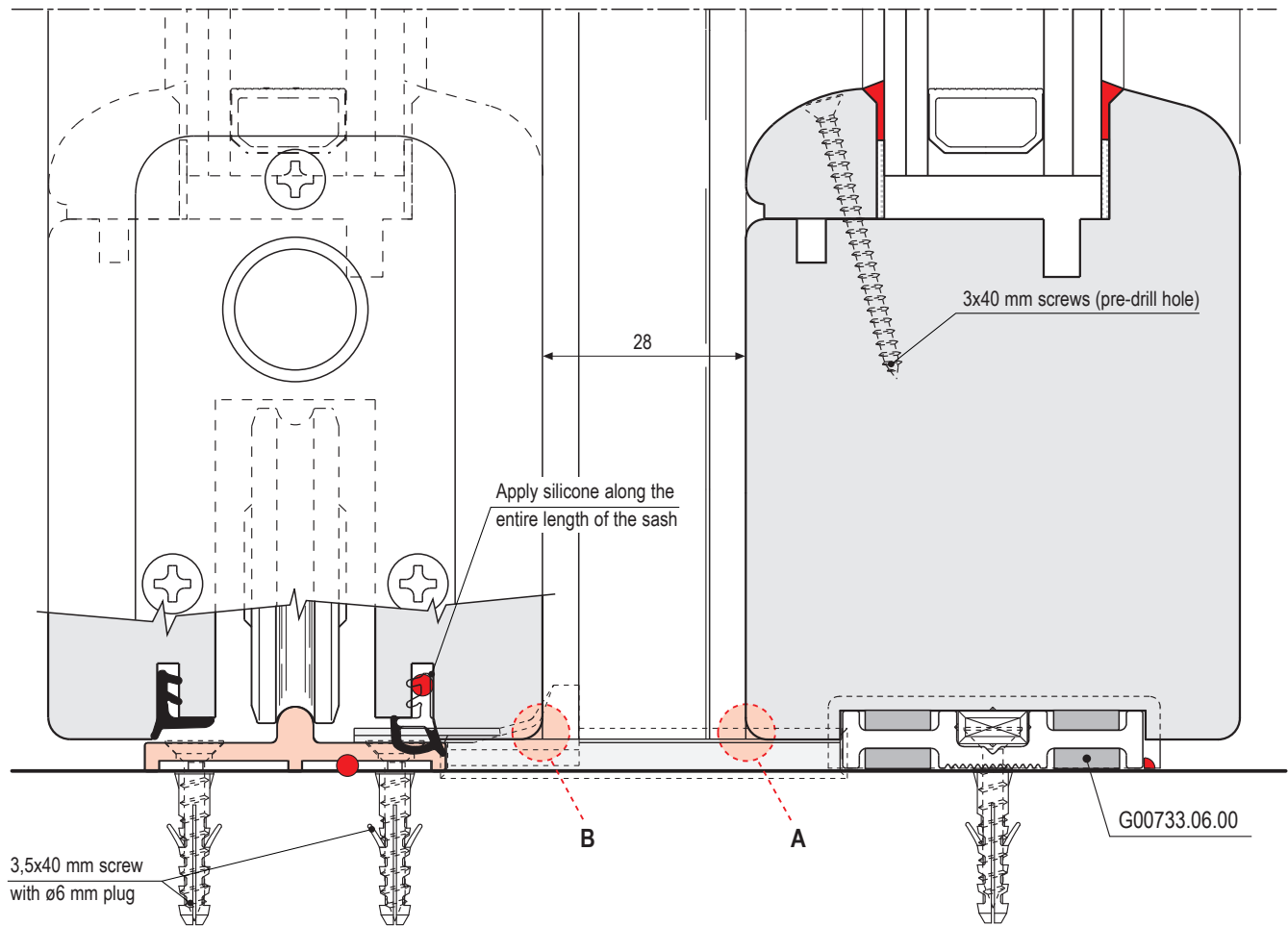
1:1 Scale



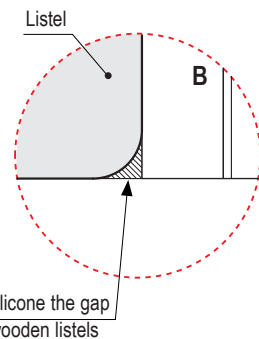
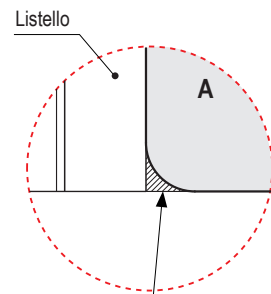
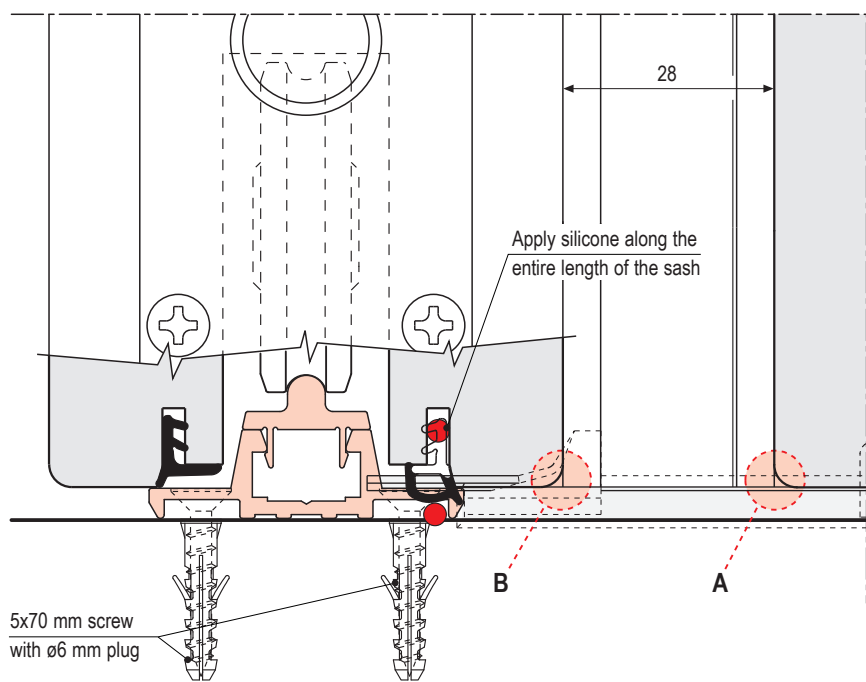
Bottom point vertical section

1:1 Scale

WITH LOW TRACK



WITH HIGH TRACK

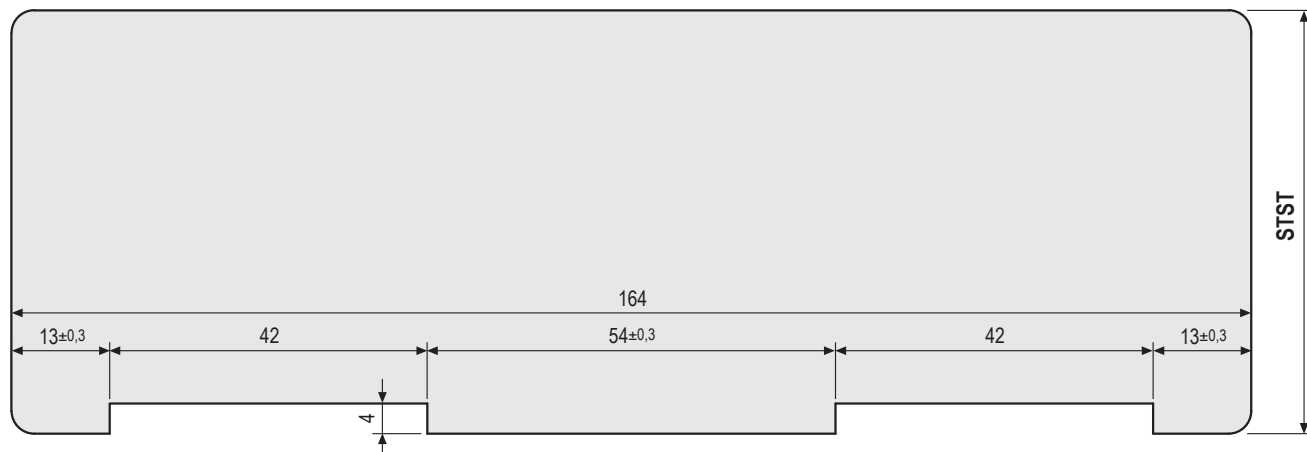


Wood detailing: vertical sections

1:1 Scale

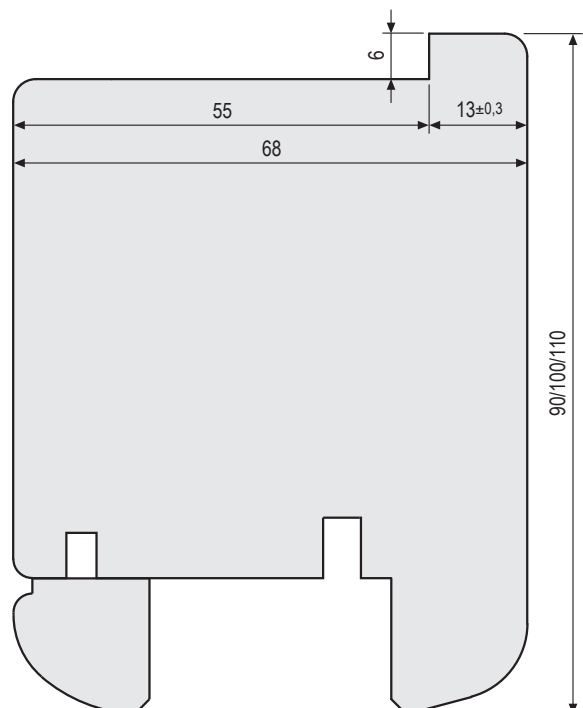
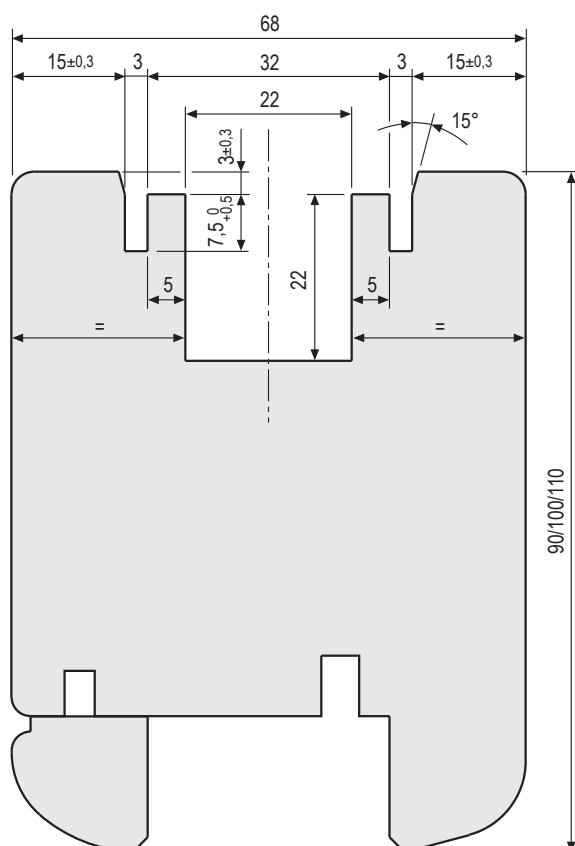
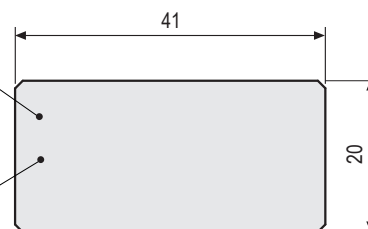
TOP POINT WITH THERMAL BREAK PAD

STST = 45/56 mm



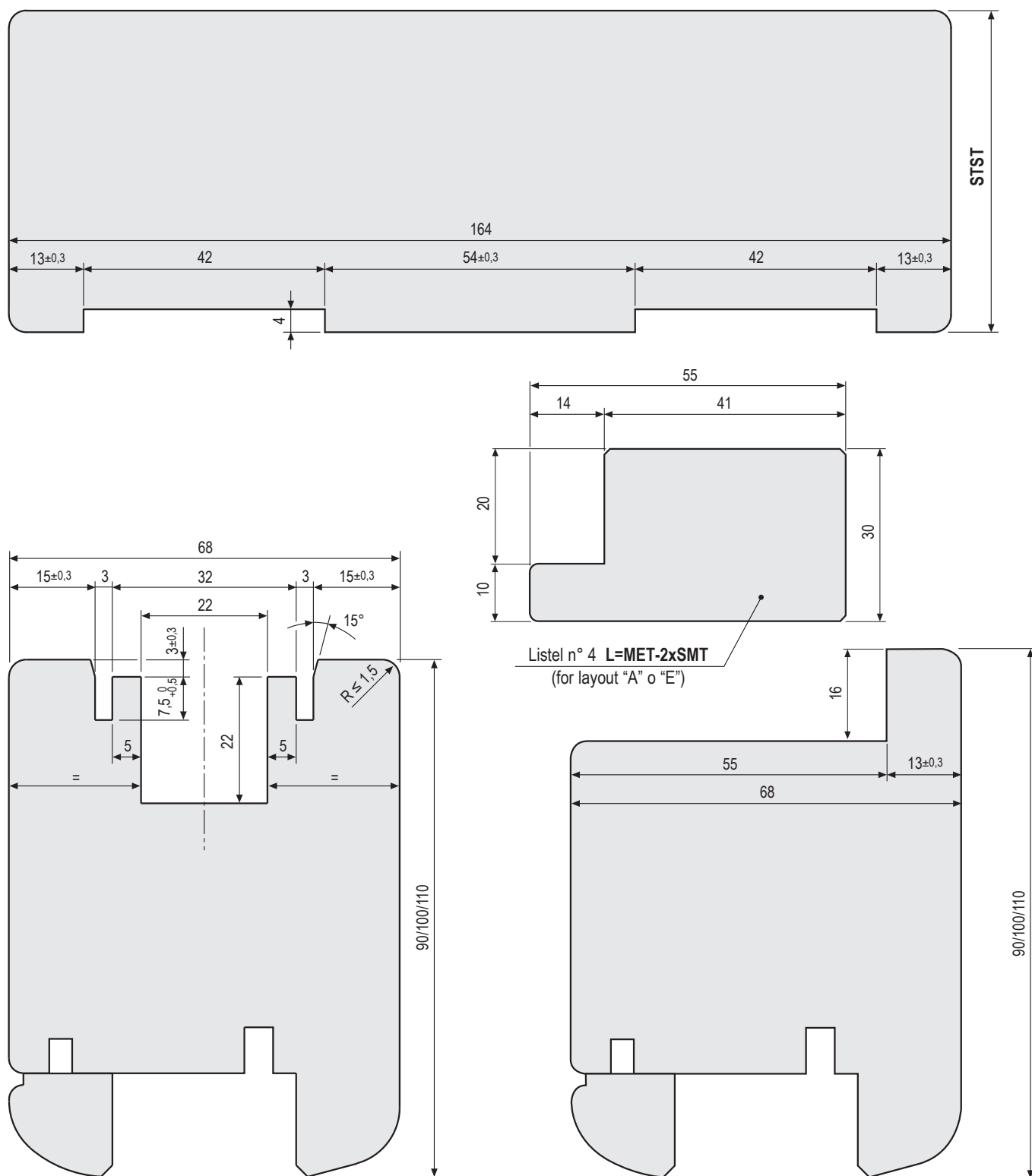
Listel n° 4 L=MET-2xSMT+2
(for layout "A")

Listello n° 4 L=MET-2xSMT+4
(for layout "E")



TOP POINT WITH LOCKING PROFILE

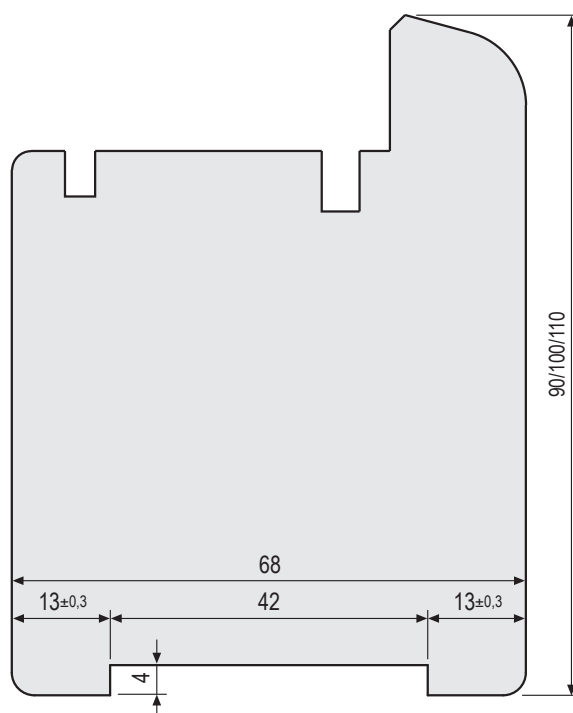
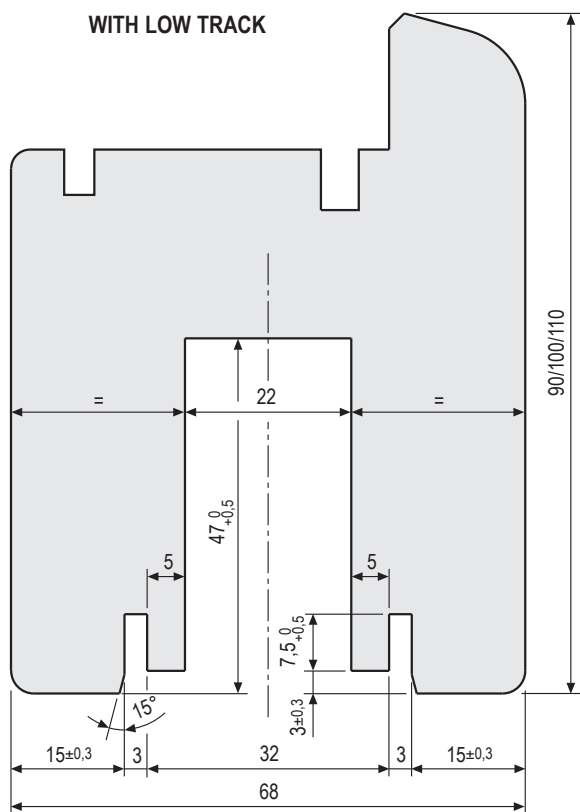
1:1 Scale



BOTTOM POINT

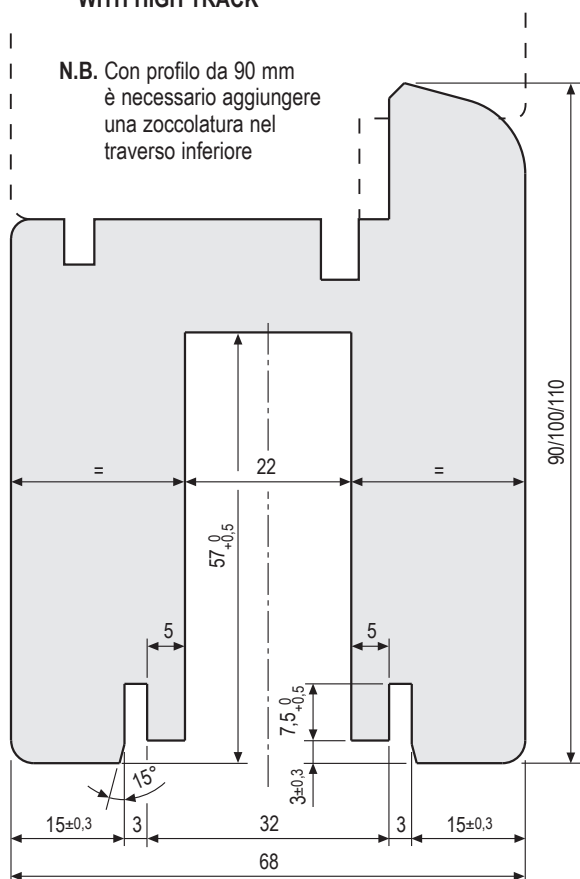
1:1 Scale

WITH LOW TRACK

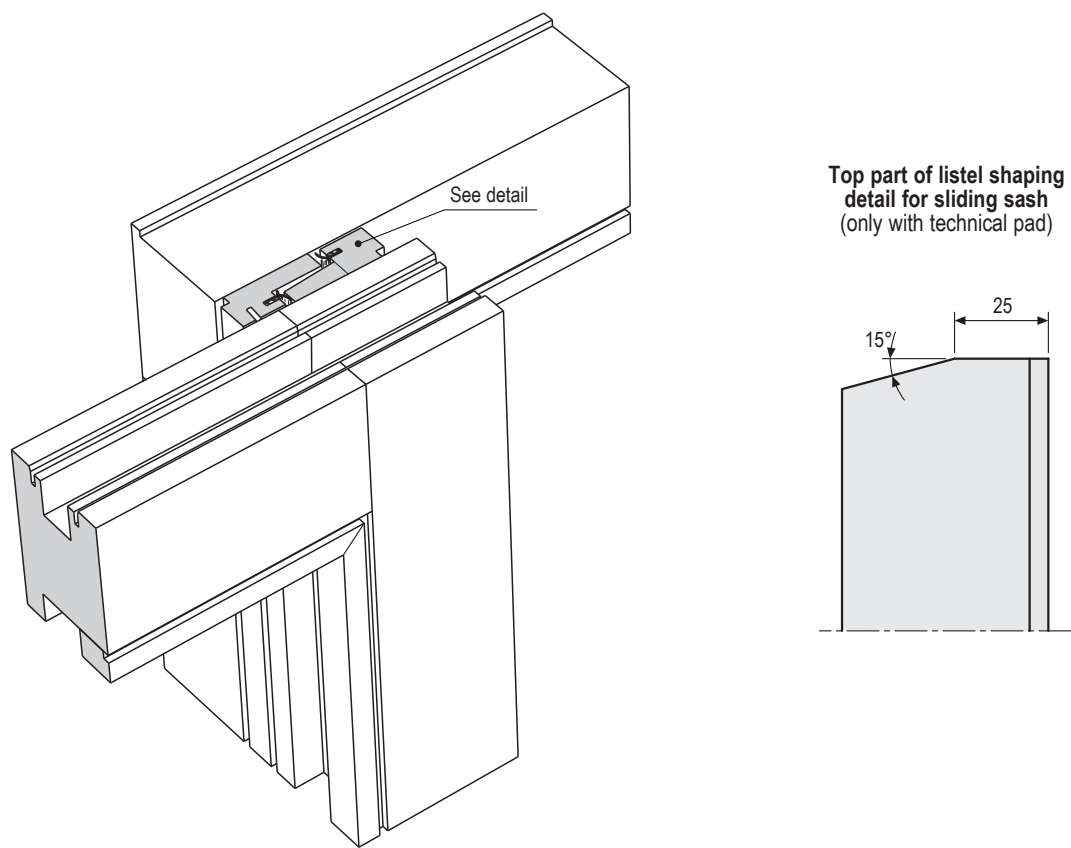


WITH HIGH TRACK

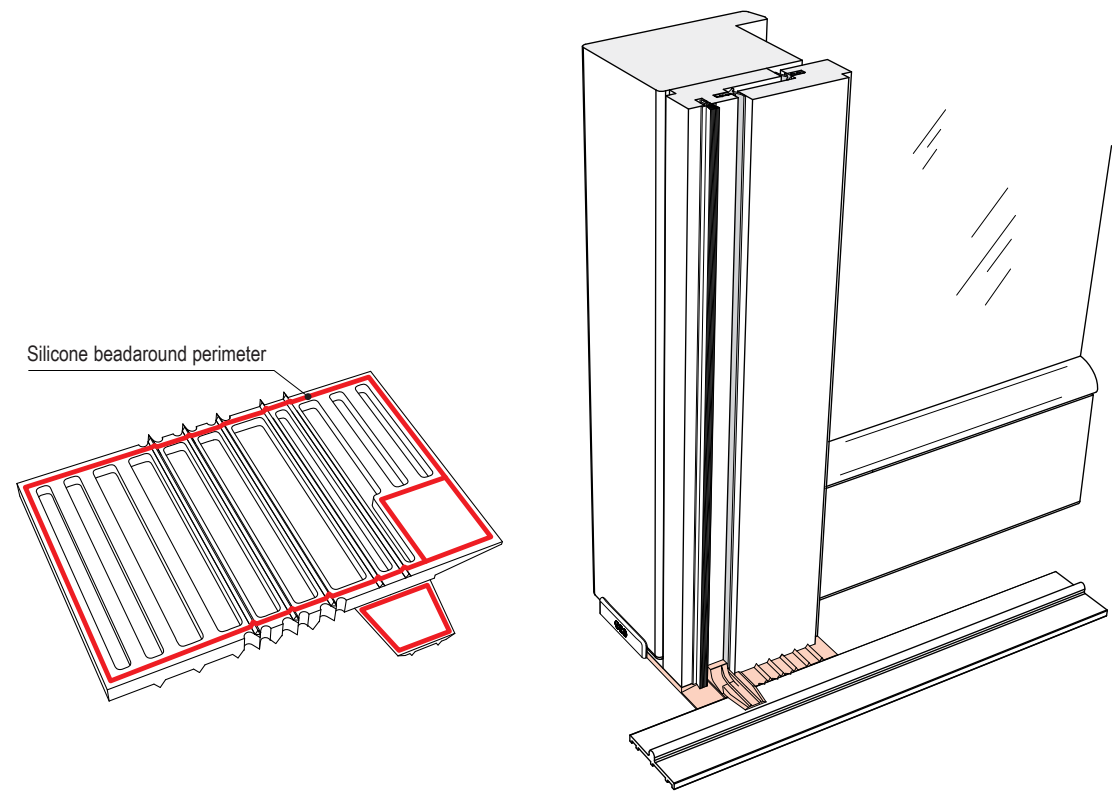
N.B. Con profilo da 90 mm
è necessario aggiungere
una zoccolatura nel
traverso inferiore



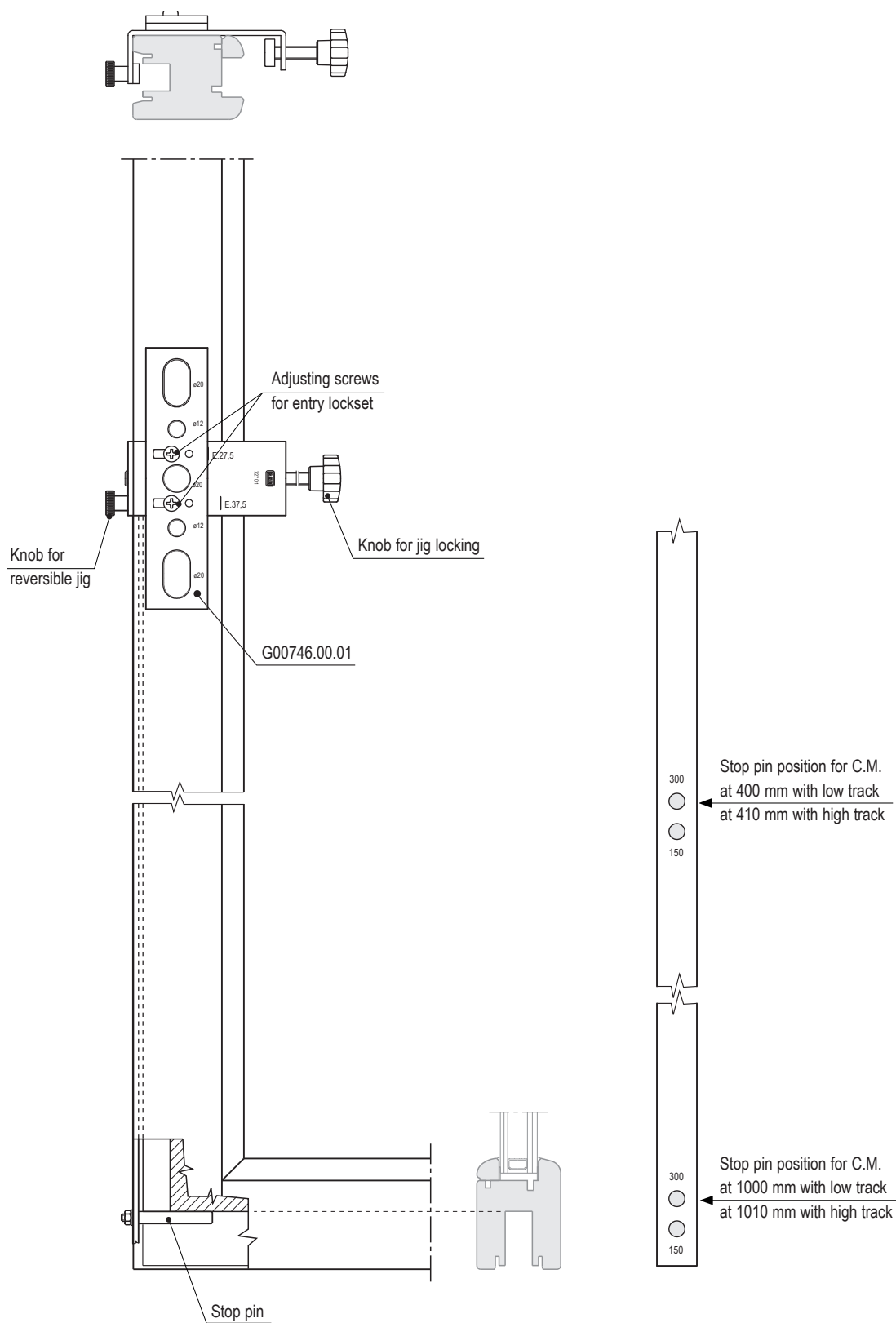
Positioning the central listels on the sashes



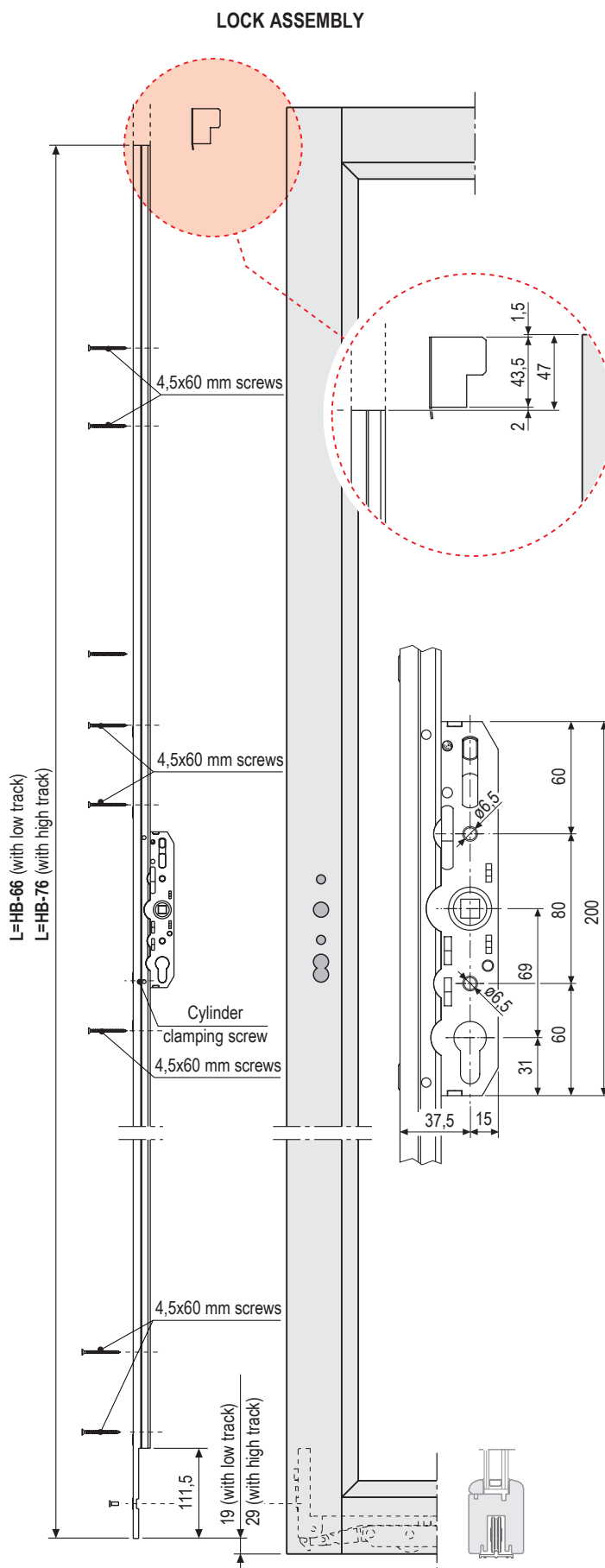
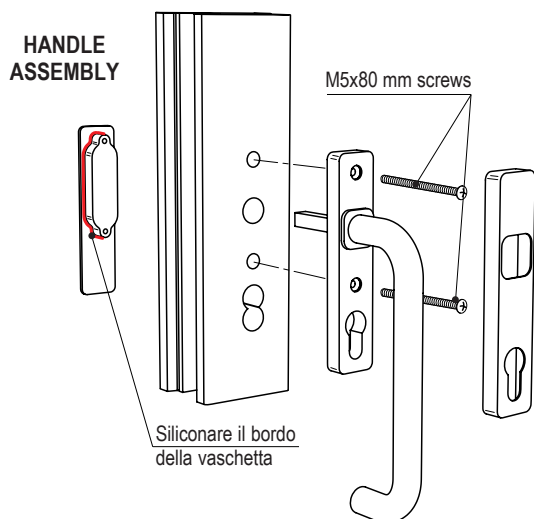
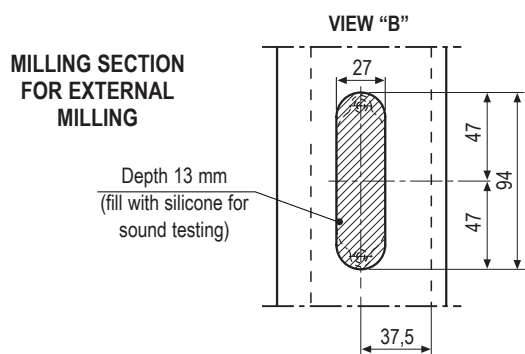
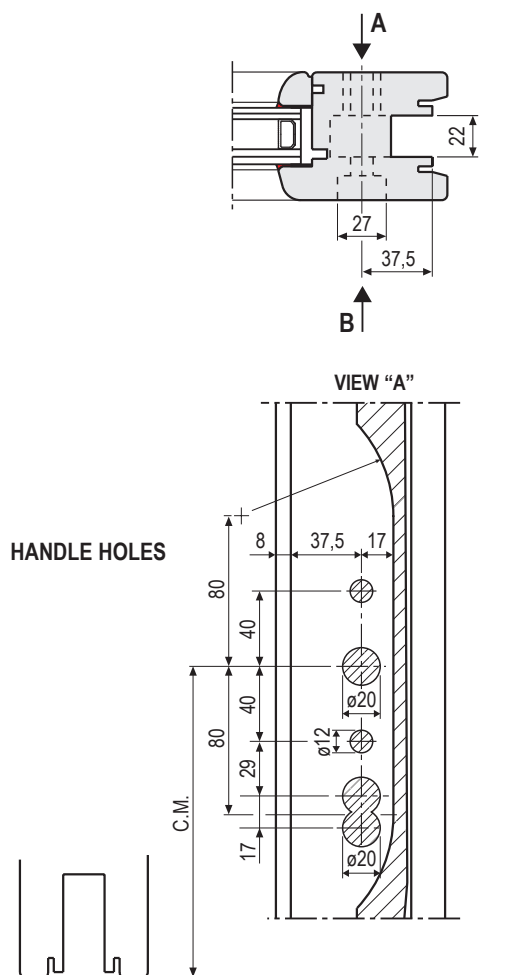
Central pad detail



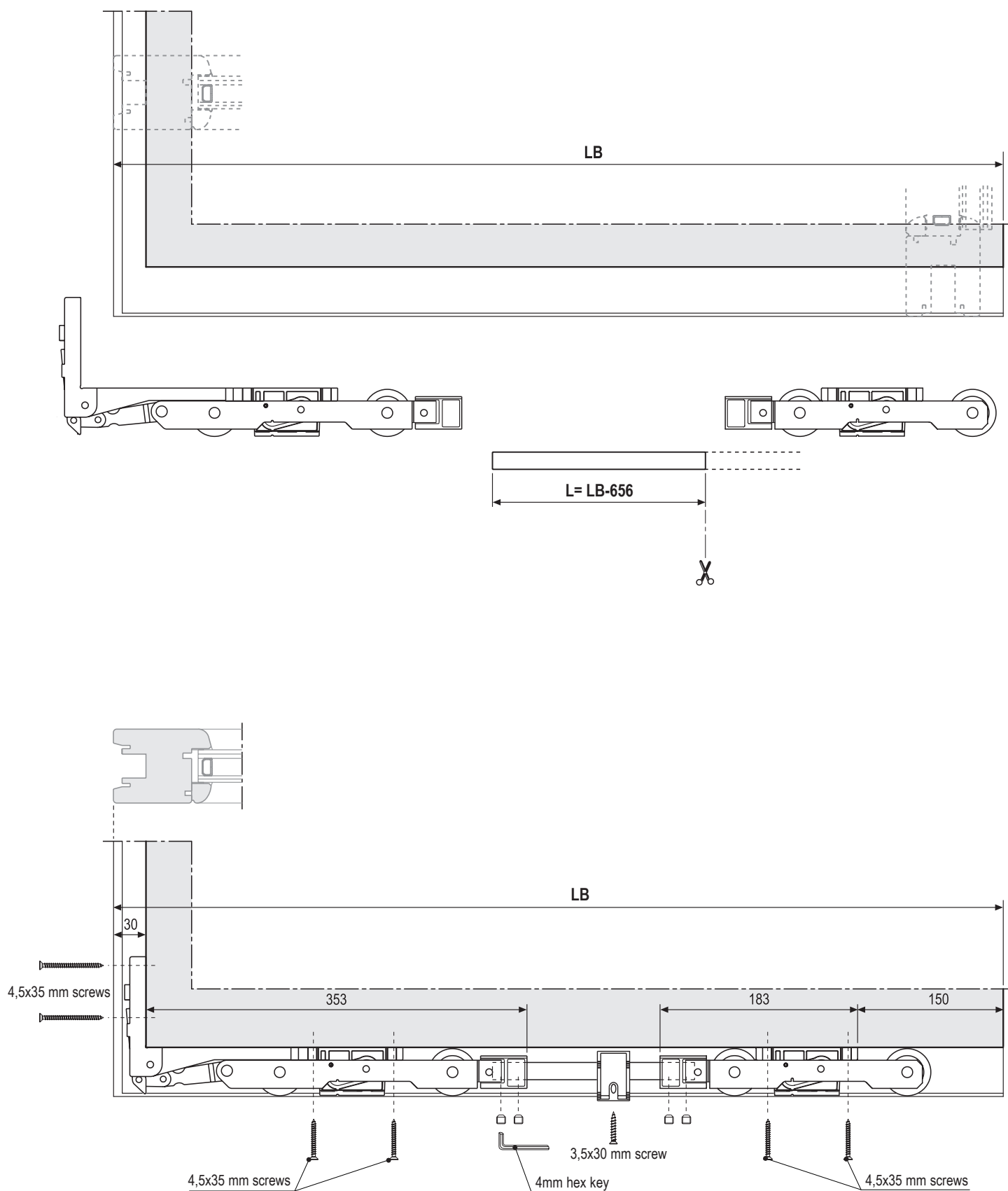
Jig application for lock holes



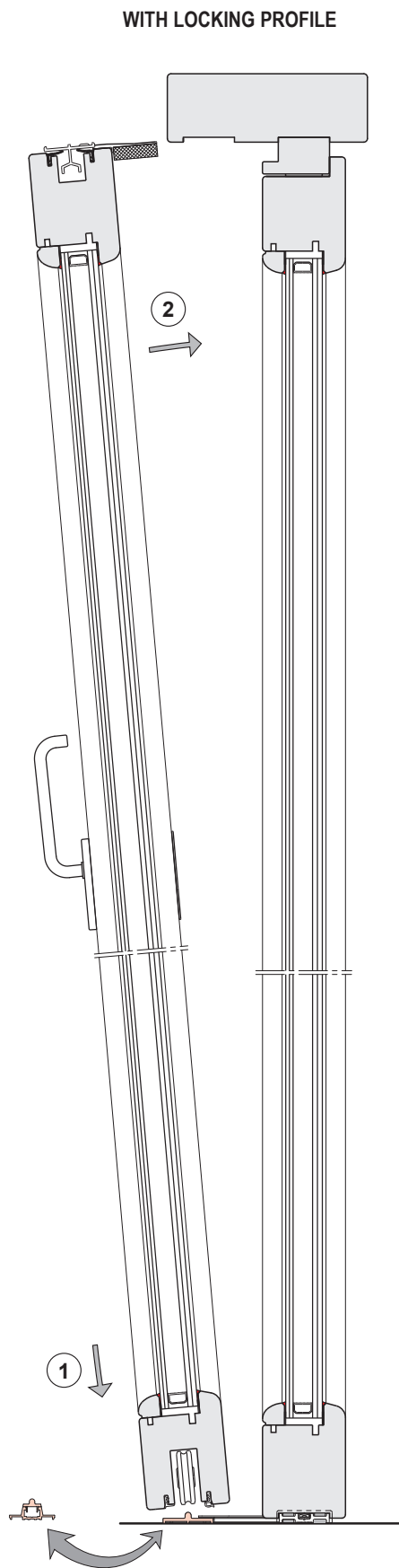
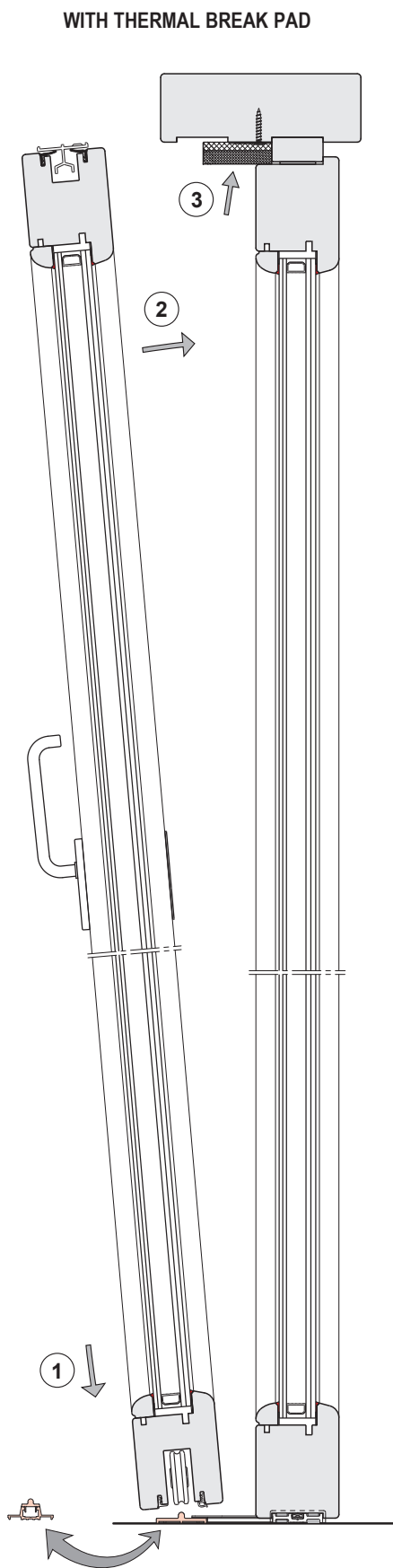
Lock/handle holes and assembly



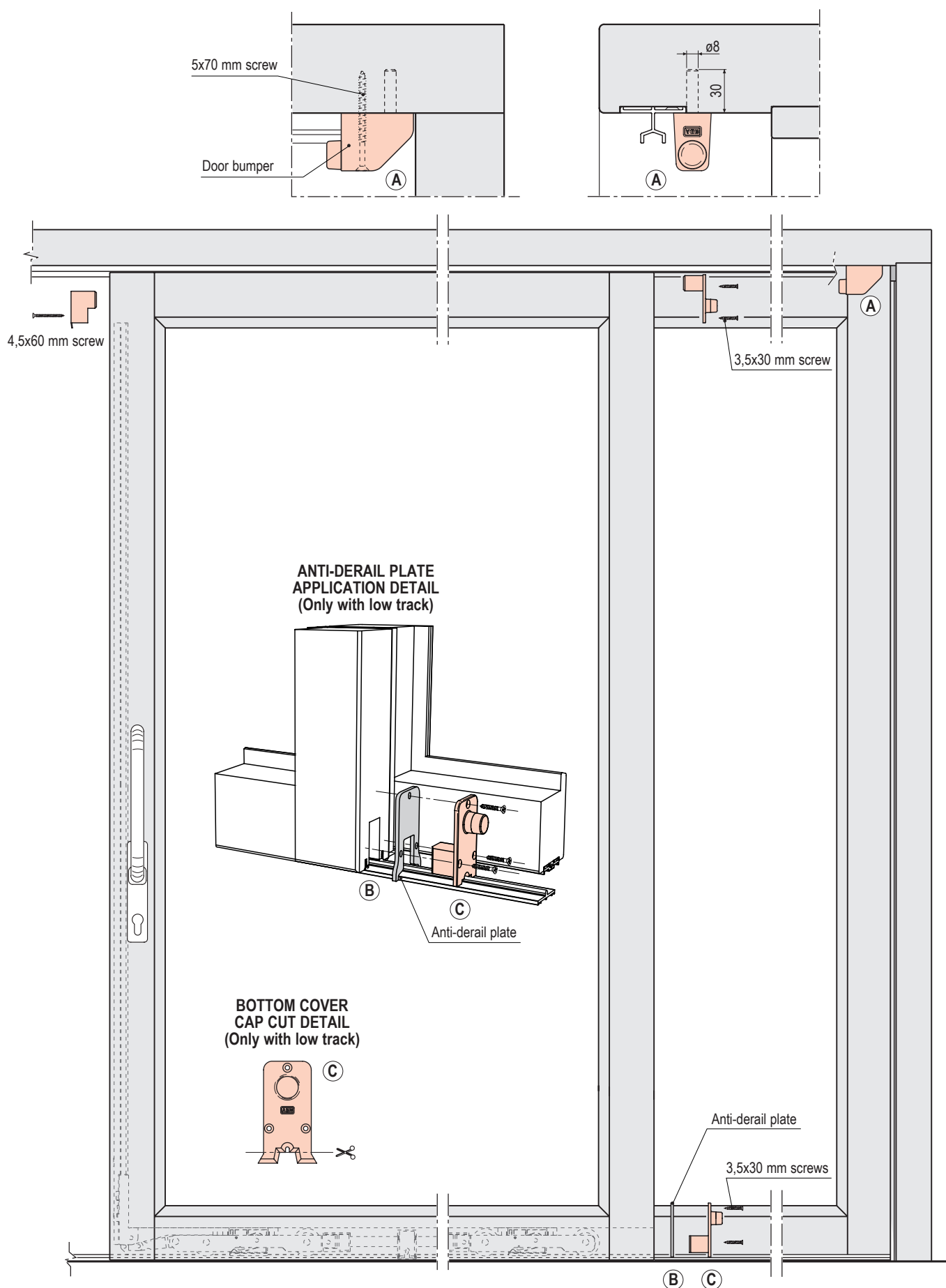
Carriage installation



Sash assembly

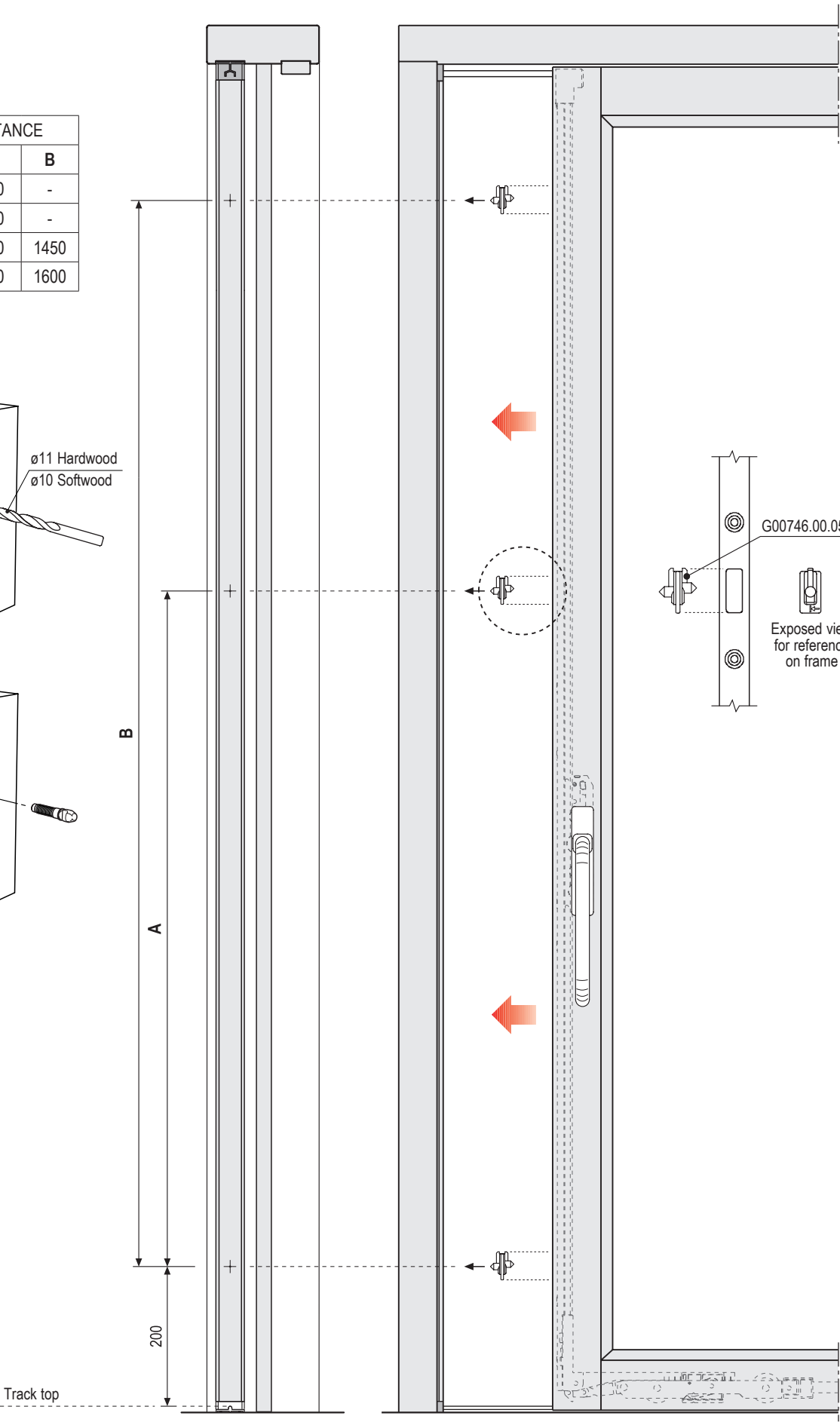
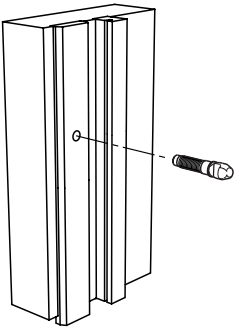
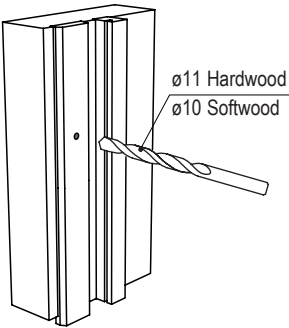


Top and bottom end caps and door bumper assembly



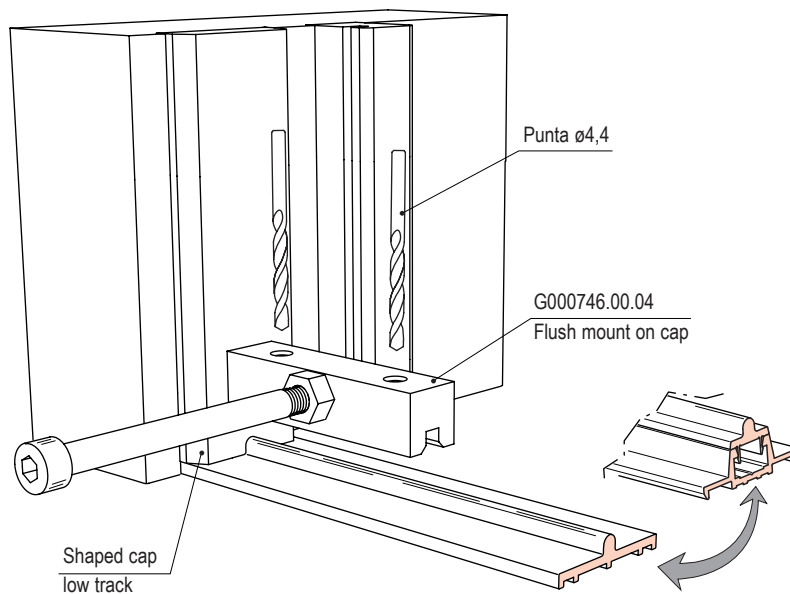
Locking pins assembly

PIN DISTANCE		
GR	A	B
1	450	-
2	850	-
3	980	1450
4	980	1600

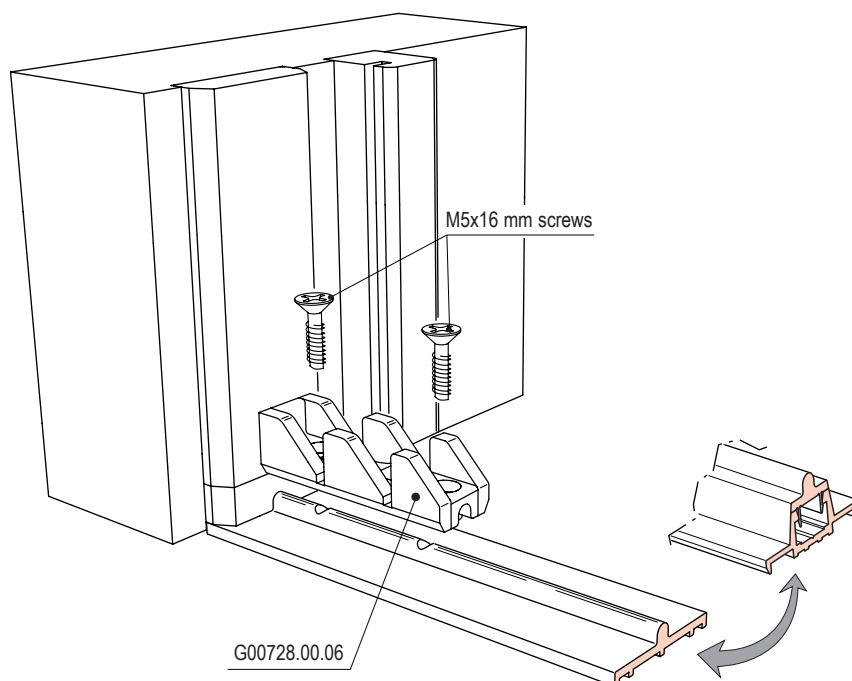


Ventilation striker application

JIG FOR VENTILATION STRIKER APPLICATION DETAIL

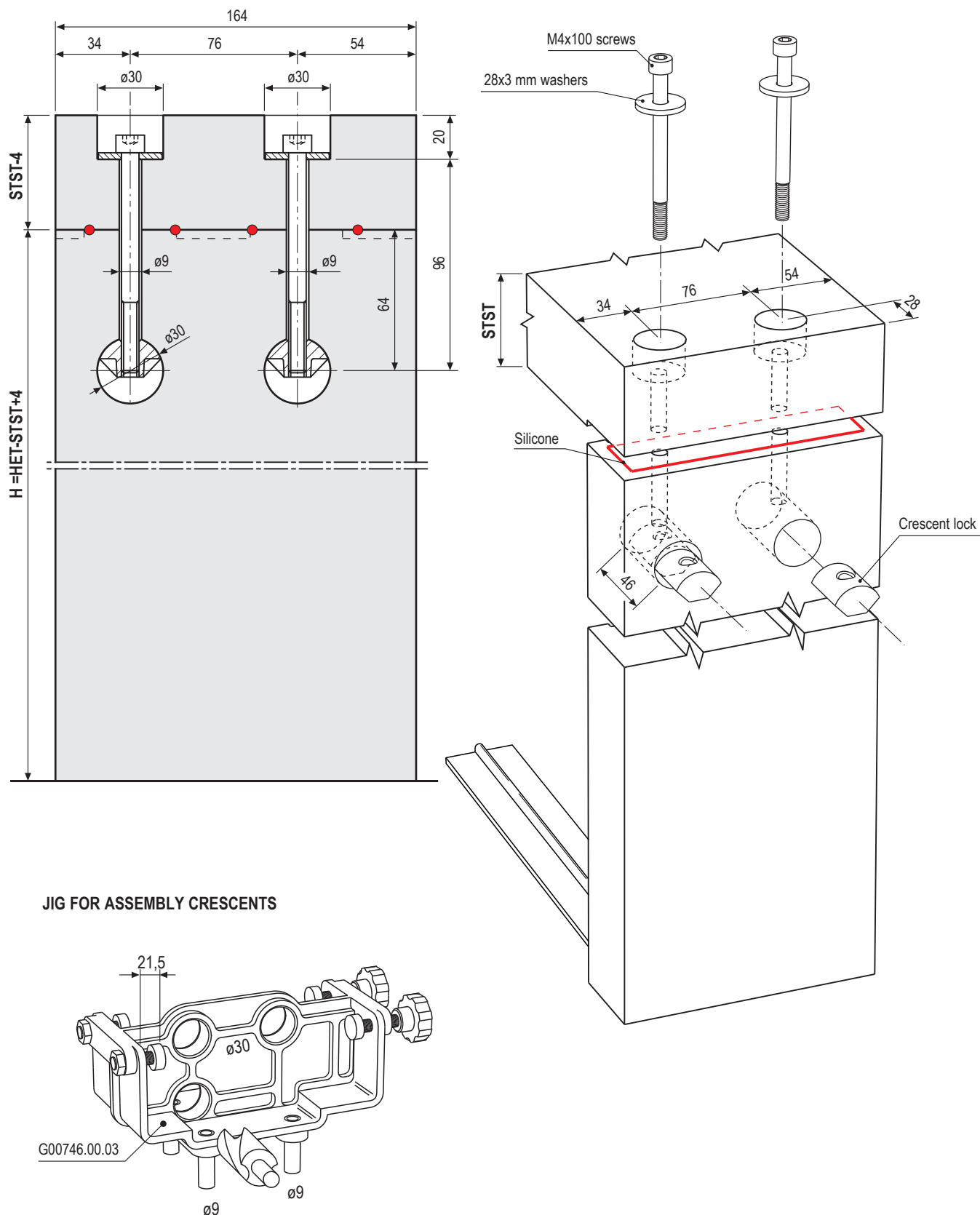


VENTILATION STRIKER APPLICATION DETAIL



Frame corner joints (alternative solution)

The jamb - transom assembly of the frame using the G00728.00.23 guarantees simple and safe assembly of the entire system, a perfect mechanical seal and protection against humidity.

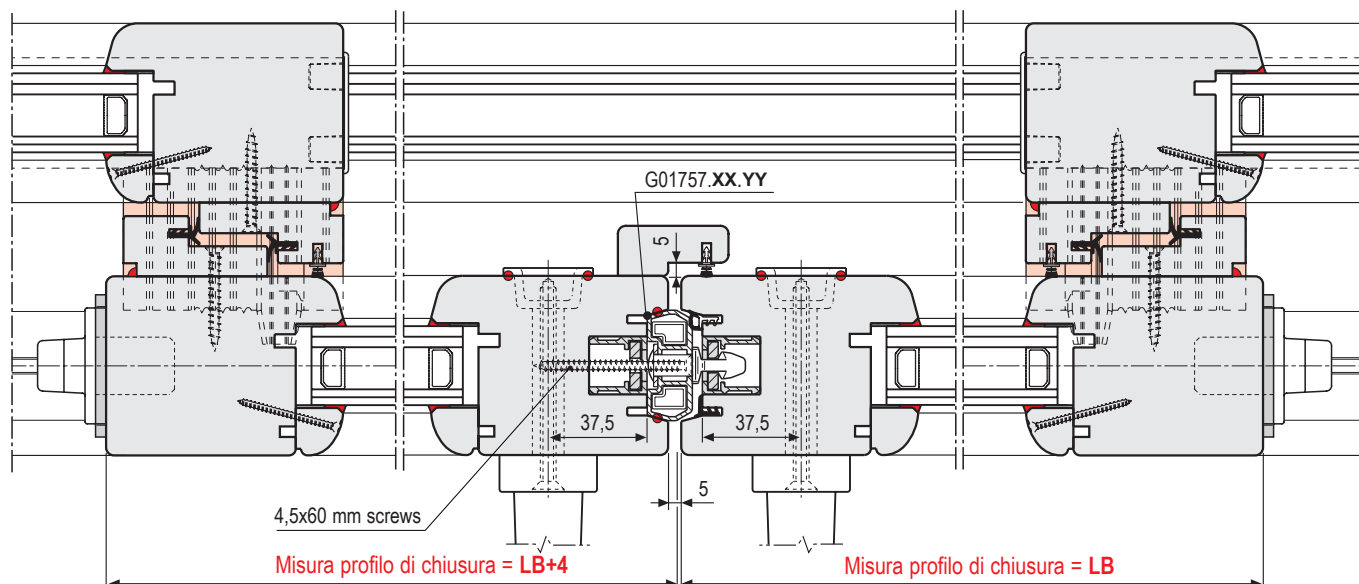


Solution for central point with coaxial sashes (layout E)

SYMMETRIC SOLUTION WITH
ALUMINIUM PROFILE



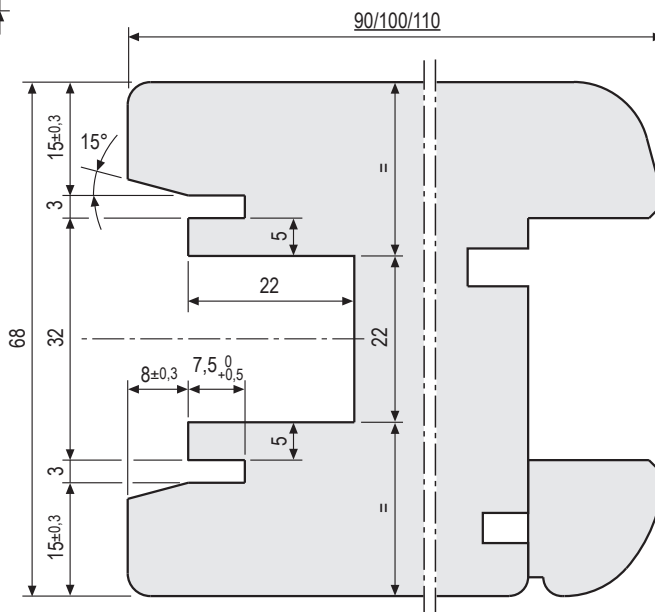
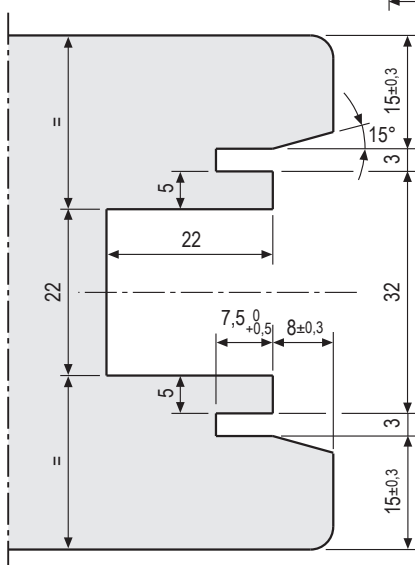
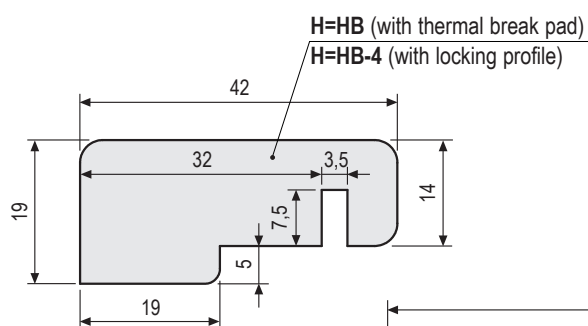
Layout E - 2 fixed doors and 2 sliding doors



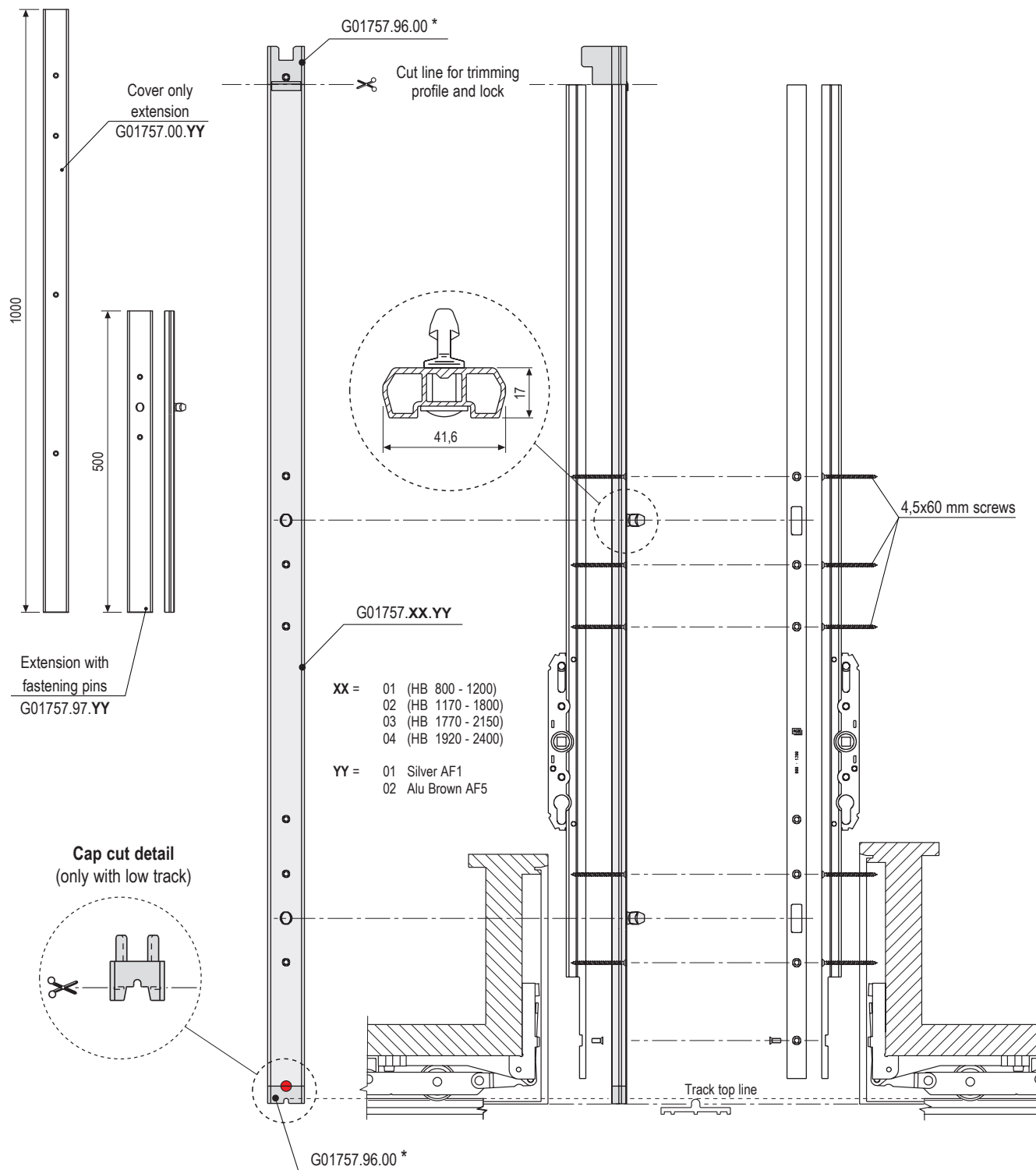
XX = 01 (HB 800 - 1200)
02 (HB 1170 - 1800)
03 (HB 1770 - 2150)
04 (HB 1920 - 2400)

YY = 01 Silver AF1
02 Alu Brown AF5

WOOD DETAILING
1:1 Scale



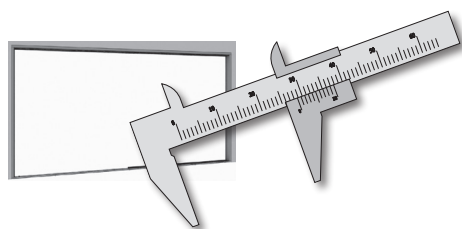
Locking profile for central point with symmetric coaxial sashes detail



* Code G01757.96.00 indicates the kit containing neutral silicone with Primer top and bottom cap

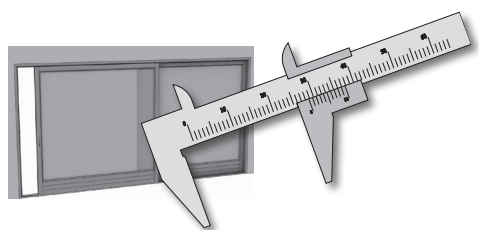


Steps to take for factory process control (FPC)



Frame component measurements and techniques for air-water tightness

- 1 - Measure the length and width of the top rail and the vertical jambs
- 2 - Check that the width and depth of the milled housing for the aluminium top guide and the wooden listels conform to the instructions included in this technical manual.
- 3 - Verify the width and length of the listels.
- 4 - Control that the length of the fixed sash supporting profile and the bottom track match the instructions in this technical manual.



Sash component measurements and techniques for air-water tightness

- 1 - Based on the frame measurements, calculate, according to the instructions in this technical manual, the measurement of the leaves (**LxH**) and verify that the dimensions of the sash produced conform to those calculated.
- 2 - Verify the orthogonality (square) of the leaves by measuring the diagonals: it is very important that they are the same for correct operation and closing.
- 3 - Check that the thickness of the sash is exactly 68 mm.
- 4 - Verify that the width of the milled housings for the carriages are 22mm and check that they are exactly in the centreline of the 68 mm thickness.
- 5 - Check the depth of the milled housings for the gaskets, making sure that they are free from dirt and paint, or glue residue.
- 6 - Check the depth and position of the lock hole.
- 7 - Control the coplanarity of the bottom jamb/transom joints of both leaves. Level with stucco if required, in order not to compromise the seal.
- 8 - The double glazing sheets should have silicone applied on both on the rebate support as well as around the outer perimeter.
- 9 - Silicone the inner glazing beads or use specific gaskets.
- 10 - Make a silicone bead inside the groove for the bottom outer gasket before inserting it. Under the bottom gasket fin, apply a thin line of silicone between the wood and fin along the entire length of the sash.



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